

Luminaire

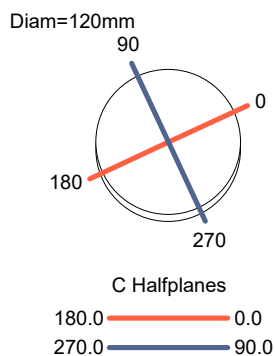
Code 10-9055-DQ-DQ_2700K
Name MACA

Measurem.

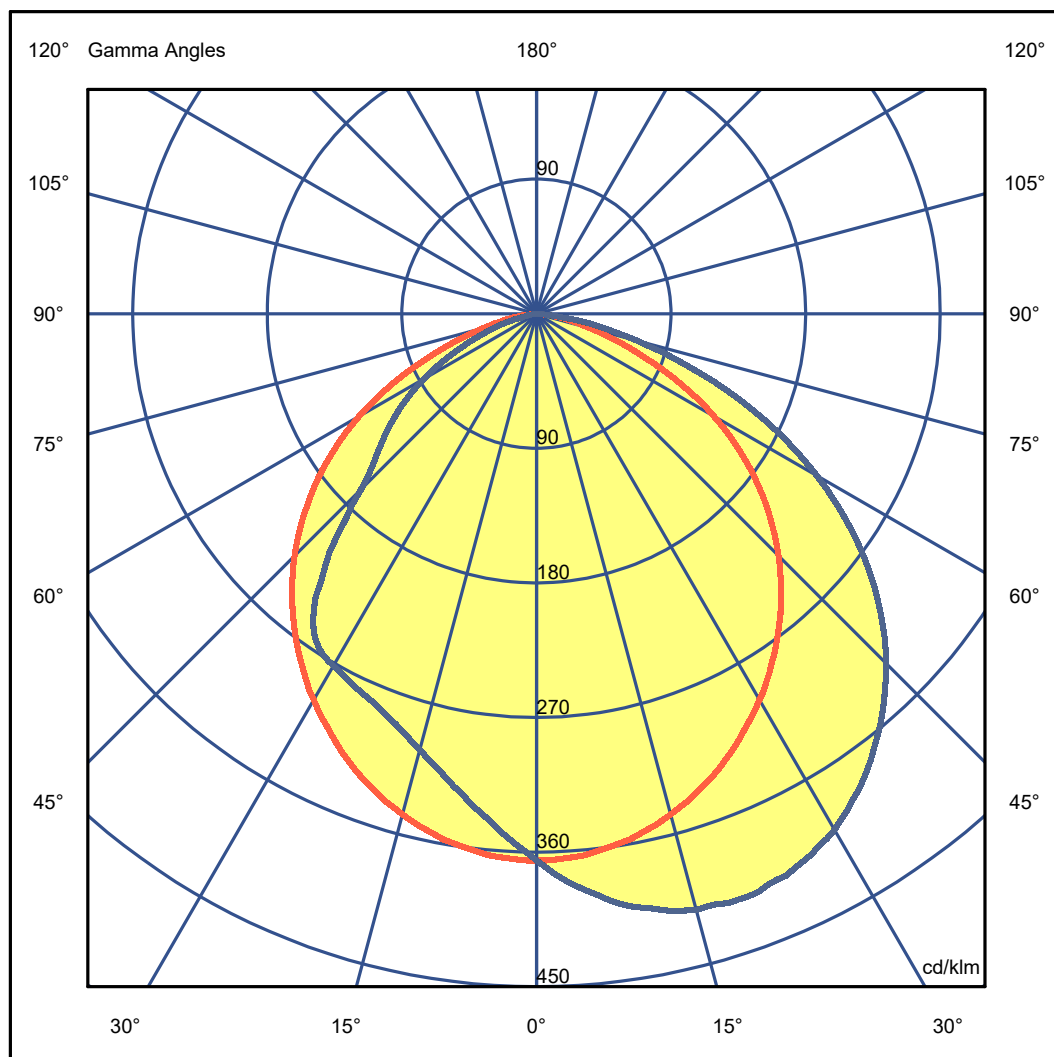
Code 10-9055-DQ-DQ_2700K
Name MACA

Luminaire Flux	566 lm	Luminaire Power	9.0 W	Efficacy	62.889 lm/W	Efficiency	100.00%
Source Flux	566 lm	Maximum value	414.51 cd/klm	Position	C=90.00 G=20.00	CG	Asymmetrical
Round Luminaire		Diam.	120 mm	Height	15 mm		
Round Luminous Area		Diam.	55 mm	Height	0 mm		
Horizontal Luminous Area		0.002376 m2		Emitting area on Plane 180°		0.000000 m2	
Emitting area on Plane 0°		0.000000 m2		Emitting area on Plane 270°		0.000000 m2	
Emitting area on Plane 90°		0.000000 m2		Glare area at 76°		0.000575 m2	
Coordinate system		CG		Symmetry Type		Asymmetrical	
Date		13-07-2023		Maximum Gamma Angle		90	
Measurement Distance		0.00		Measurement Flux		514 lm	
Operator		qualitat		Rated Voltage			
Temperature				Rated Current			
Humidity				Photocell			
Notes							

Line		Code LED		Luminaire Sources		Flux [lm]	Pow. [W]	Q.ty
				Name		566.00	9.00	1
				-				
C.I.E.	50 83 98	100	100	D DIN 5040	A30			
F UTE	1.00 E			B NBN	BZ 4			



ULOR 0.00 %
DLOR 100.00 %
RN 0.00 %



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Luminaire Flux	566 lm	Luminaire Power		9.0 W	Efficacy	62.889 lm/W		Efficiency	100.00%				
Source Flux	566 lm	Maximum value		414.51 cd/klm	Position	C=90.00 G=20.00		CG	Asymmetrical				
Luminous Intensity Table cd/klm										Table 1/4			
	C 0.00	C 15.00	C 30.00	C 45.00	C 60.00	C 75.00	C 90.00	C 105.00	C 120.00	C 135.00	C 150.00	C 165.00	C 180.00
G 0.0	365.53	365.53	365.53	365.53	365.53	365.53	365.53	365.53	365.53	365.53	365.53	365.53	365.53
G 1.0	365.59	367.73	367.96	369.34	369.95	370.33	370.35	370.33	369.95	369.34	367.96	367.73	365.59
G 2.0	365.12	368.63	370.06	372.12	373.62	375.05	375.42	375.05	373.62	372.12	370.06	368.63	365.12
G 3.0	364.66	369.73	371.81	374.85	376.93	378.91	379.84	378.91	376.93	374.85	371.81	369.73	364.66
G 4.0	364.07	370.69	374.13	378.07	380.66	383.03	383.69	383.03	380.66	378.07	374.13	370.69	364.07
G 5.0	363.57	370.98	374.90	380.91	384.22	387.22	387.43	387.22	384.22	380.91	374.90	370.98	363.57
G 6.0	362.14	371.53	376.07	382.60	386.79	390.66	390.81	390.66	386.79	382.60	376.07	371.53	362.14
G 7.0	360.80	372.01	377.55	385.18	390.24	393.96	394.74	393.96	390.24	385.18	377.55	372.01	360.80
G 8.0	359.69	372.07	378.20	386.92	392.61	396.64	398.23	396.64	392.61	386.92	378.20	372.07	359.69
G 9.0	358.26	371.44	379.26	388.40	394.60	399.55	401.19	399.55	394.60	388.40	379.26	371.44	358.26
G 10.0	357.02	371.50	379.78	389.83	396.85	402.00	403.15	402.00	396.85	389.83	379.78	371.50	357.02
G 11.0	355.07	370.80	379.67	391.04	398.76	404.09	405.05	404.09	398.76	391.04	379.67	370.80	355.07
G 12.0	353.01	369.87	379.45	391.89	400.25	406.32	407.74	406.32	400.25	391.89	379.45	369.87	353.01
G 13.0	351.23	368.58	379.56	392.41	401.36	408.38	409.96	408.38	401.36	392.41	379.56	368.58	351.23
G 14.0	348.91	367.37	379.12	393.12	402.39	409.57	411.15	409.57	402.39	393.12	379.12	367.37	348.91
G 15.0	346.64	366.12	378.47	393.01	402.96	410.50	412.75	410.50	402.96	393.01	378.47	366.12	346.64
G 16.0	343.97	364.23	377.50	393.34	403.73	411.60	412.36	411.60	403.73	393.34	377.50	364.23	343.97
G 17.0	341.65	362.58	376.48	392.82	403.79	412.50	412.70	412.50	403.79	392.82	376.48	362.58	341.65
G 18.0	338.82	359.83	375.92	392.67	403.32	412.52	414.22	412.52	403.32	392.67	375.92	359.83	338.82
G 19.0	335.92	358.35	373.77	391.69	402.89	411.97	414.32	411.97	402.89	391.69	373.77	358.35	335.92
G 20.0	333.22	355.73	372.32	390.27	403.31	411.93	414.51	411.93	403.31	390.27	372.32	355.73	333.22
G 21.0	330.25	353.02	370.95	389.25	402.15	411.28	413.98	411.28	402.15	389.25	370.95	353.02	330.25
G 22.0	327.17	350.41	368.59	388.23	400.43	410.27	411.94	410.27	400.43	388.23	368.59	350.41	327.17
G 23.0	323.55	347.74	365.89	386.13	399.34	409.75	411.18	409.75	399.34	386.13	365.89	347.74	323.55
G 24.0	320.50	344.73	363.54	384.69	398.39	408.51	411.06	408.51	398.39	384.69	363.54	344.73	320.50
G 25.0	316.82	341.67	361.05	381.88	396.09	406.67	408.75	406.67	396.09	381.88	361.05	341.67	316.82
G 26.0	313.14	338.41	358.38	379.34	393.79	405.03	407.18	405.03	393.79	379.34	358.38	338.41	313.14
G 27.0	309.22	334.26	355.40	377.18	391.90	402.84	405.47	402.84	391.90	377.18	355.40	334.26	309.22
G 28.0	305.75	331.27	352.18	374.92	389.65	400.33	402.60	400.33	389.65	374.92	352.18	331.27	305.75
G 29.0	302.15	326.74	348.85	371.74	386.91	398.24	400.96	398.24					

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Luminaire Flux		566 lm		Luminaire Power		9.0 W		Efficacy		62.889 lm/W		Efficiency		100.00%	
Source Flux		566 lm		Maximum value		414.51 cd/klm		Position		C=90.00 G=20.00		CG Asymmetrical			
Luminous Intensity Table cd/klm Table 2/4															
		C 195.00	C 210.00	C 225.00	C 240.00	C 255.00	C 270.00	C 285.00	C 300.00	C 315.00	C 330.00	C 345.00			
G 0.0		365.53	365.53	365.53	365.53	365.53	365.53	365.53	365.53	365.53	365.53	365.53	365.53	365.53	
G 1.0		364.19	362.79	361.99	361.19	360.86	360.58	360.86	361.19	361.99	362.79	364.19	364.19	364.19	
G 2.0		361.16	360.74	358.72	357.28	356.57	356.11	356.57	357.28	358.72	360.74	361.16	361.16	361.16	
G 3.0		358.75	357.72	354.96	352.67	352.06	351.45	352.06	352.67	354.96	357.72	358.75	358.75	358.75	
G 4.0		352.93	355.11	351.69	348.55	347.35	347.02	347.35	348.55	351.69	355.11	352.93	352.93	352.93	
G 5.0		349.79	352.50	347.84	344.17	342.70	341.80	342.70	344.17	347.84	352.50	349.79	349.79	349.79	
G 6.0		346.00	348.99	344.30	340.41	338.14	337.12	338.14	340.41	344.30	348.99	346.00	346.00	346.00	
G 7.0		343.82	345.84	340.89	336.00	334.22	333.06	334.22	336.00	340.89	345.84	343.82	343.82	343.82	
G 8.0		342.46	343.24	337.26	331.84	330.30	328.66	330.30	331.84	337.26	343.24	342.46	342.46	342.46	
G 9.0		344.01	339.84	333.27	328.18	326.00	324.35	326.00	328.18	333.27	339.84	344.01	344.01	344.01	
G 10.0		342.10	336.41	329.60	324.04	322.02	320.50	322.02	324.04	329.60	336.41	342.10	342.10	342.10	
G 11.0		338.85	333.25	326.23	320.08	318.28	316.04	318.28	320.08	326.23	333.25	338.85	338.85	338.85	
G 12.0		333.03	330.02	322.50	316.32	314.30	312.37	314.30	316.32	322.50	330.02	333.03	333.03	333.03	
G 13.0		327.28	326.54	318.78	312.75	310.43	308.69	310.43	312.75	318.78	326.54	327.28	327.28	327.28	
G 14.0		322.88	323.10	315.07	308.81	306.87	305.29	306.87	308.81	315.07	323.10	322.88	322.88	322.88	
G 15.0		322.45	319.76	311.27	305.65	303.70	301.80	303.70	305.65	311.27	319.76	322.45	322.45	322.45	
G 16.0		322.06	316.34	307.88	302.13	300.51	298.73	300.51	302.13	307.88	316.34	322.06	322.06	322.06	
G 17.0		318.94	312.82	304.65	298.70	297.21	295.47	297.21	298.70	304.65	312.82	318.94	318.94	318.94	
G 18.0		314.09	309.00	301.26	295.67	294.42	292.78	294.42	295.67	301.26	309.00	314.09	314.09	314.09	
G 19.0		310.60	305.81	298.12	292.69	291.72	290.01	291.72	292.69	298.12	305.81	310.60	310.60	310.60	
G 20.0		308.31	302.48	295.00	289.91	289.23	287.85	289.23	289.91	295.00	302.48	308.31	308.31	308.31	
G 21.0		304.51	299.08	291.67	287.21	286.63	285.68	286.63	287.21	291.67	299.08	304.51	304.51	304.51	
G 22.0		294.22	295.56	288.85	284.61	284.53	283.66	284.53	284.61	288.85	295.56	294.22	294.22	294.22	
G 23.0		288.67	292.32	285.86	282.21	282.60	281.63	282.60	282.21	285.86	292.32	288.67	288.67	288.67	
G 24.0		285.19	289.17	282.99	279.94	280.80	280.11	280.80	279.94	282.99	289.17	285.19	285.19	285.19	
G 25.0		284.44	285.68	280.25	277.69	279.06	278.63	279.06	277.69	280.25	285.68	284.44	284.44	284.44	
G 26.0		285.05	282.48	277.62	275.72	277.49	277.31	277.49	275.72	277.62	282.48	285.05	285.05	285.05	
G 27.0		284.43	279.01	275.01	273.88	275.90	275.99	275.90	273.88	275.01	279.01	284.43	284.43	284.43	
G 28.0		281.28	275.79	272.19	271.93	274.27	274.35	274.27	271.93	272.19	275.79	281.28	281.28	281.28	
G 29.0		275.87	272.86	269.78	269.97	272.77	272.79	272.77	269.97	269.78	272.86	275.87	275.87	275.87	
G 30.0		270.82	269.98	266.94	267.98	271.10	271.68	271.10	267.98	266.94	269.98	270.82	270.82	270.82	
G 31.0		265.29	267.09	264.57	266.14	269.44	270.57	269.44	266.14	264.57	267.09	265.29	265.29	265.29	
G 32.0		261.27	263.78	261.98	264.33	267.65	269.24	267.65	264.33	261.98	263.78	261.27	261.27	261.27	
G 33.0		260.04	260.66	259.43	262.10	265.42	266.90	265.42	262.10	259.43	260.66	260.04	260.04	260.04	
G 34.0		258.20	257.47	256.88	259.94	262.60	263.69	262.60	259.94	256.88	257.47	258.20	258.20	258.20	
G 35.0		257.04	254.45	254.03	257.77	259.17	259.87	259.17	257.77	254.03	254.45	257.04	257.04	257.04	
G 36.0		253.29	250.83	251.12	255.43	253.84	254.32	253.84	255.43	251.12	250.83	253.29	253.29	253.29	
G 37.0		247.64	247.50	248.12	252.75	247.32	247.67</								

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Luminaire Flux	566 lm	Luminaire Power	9.0 W	Efficacy	62.889 lm/W	Efficiency	100.00%
Source Flux	566 lm	Maximum value	414.51 cd/klm	Position	C=90.00 G=20.00	CG	Asymmetrical

Luminous Intensity Table cd/klm Table 3/4

	C 0.00	C 15.00	C 30.00	C 45.00	C 60.00	C 75.00	C 90.00	C 105.00	C 120.00	C 135.00	C 150.00	C 165.00	C 180.00
G 73.0	47.66	53.81	57.68	70.95	78.29	88.43	87.39	88.43	78.29	70.95	57.68	53.81	47.66
G 74.0	42.40	47.93	51.55	63.37	69.95	79.28	78.24	79.28	69.95	63.37	51.55	47.93	42.40
G 75.0	37.58	42.62	45.72	56.32	62.18	70.62	69.74	70.62	62.18	56.32	45.72	42.62	37.58
G 76.0	33.13	37.44	40.45	49.77	54.89	62.38	61.47	62.38	54.89	49.77	40.45	37.44	33.13
G 77.0	28.87	32.96	35.34	43.70	48.13	54.74	53.88	54.74	48.13	43.70	35.34	32.96	28.87
G 78.0	25.18	28.58	30.82	38.00	41.61	47.67	46.91	47.67	41.61	38.00	30.82	28.58	25.18
G 79.0	21.58	24.70	26.57	32.58	35.25	41.09	40.29	41.09	35.25	32.58	26.57	24.70	21.58
G 80.0	18.49	21.03	22.71	27.17	29.58	34.82	33.66	34.82	29.58	27.17	22.71	21.03	18.49
G 81.0	15.53	17.82	19.03	22.06	23.72	27.63	26.40	27.63	23.72	22.06	19.03	17.82	15.53
G 82.0	13.03	14.92	15.73	17.52	18.00	21.27	20.70	21.27	18.00	17.52	15.73	14.92	13.03
G 83.0	10.53	12.24	12.74	13.24	12.74	15.35	13.72	15.35	12.74	13.24	12.74	13.24	10.53
G 84.0	8.33	9.80	9.90	9.54	8.79	9.35	8.00	9.35	8.79	9.54	9.90	9.80	8.33
G 85.0	6.27	7.51	7.15	6.32	4.98	5.05	5.39	5.05	4.98	6.32	7.15	7.51	6.27
G 86.0	4.54	4.86	4.80	3.93	2.22	3.40	2.79	3.40	2.22	3.93	4.80	4.86	4.54
G 87.0	2.85	2.53	2.50	1.84	1.26	1.76	0.18	1.76	1.26	1.84	2.50	2.53	2.85
G 88.0	1.91	1.03	0.20	0.49	0.31	0.11	0.11	0.11	0.31	0.49	0.20	1.03	1.91
G 89.0	1.00	0.52	0.14	0.30	0.23	0.11	0.09	0.11	0.23	0.30	0.14	0.52	1.00
G 90.0	0.21	0.27	0.14	0.21	0.20	0.11	0.09	0.11	0.20	0.21	0.14	0.27	0.21

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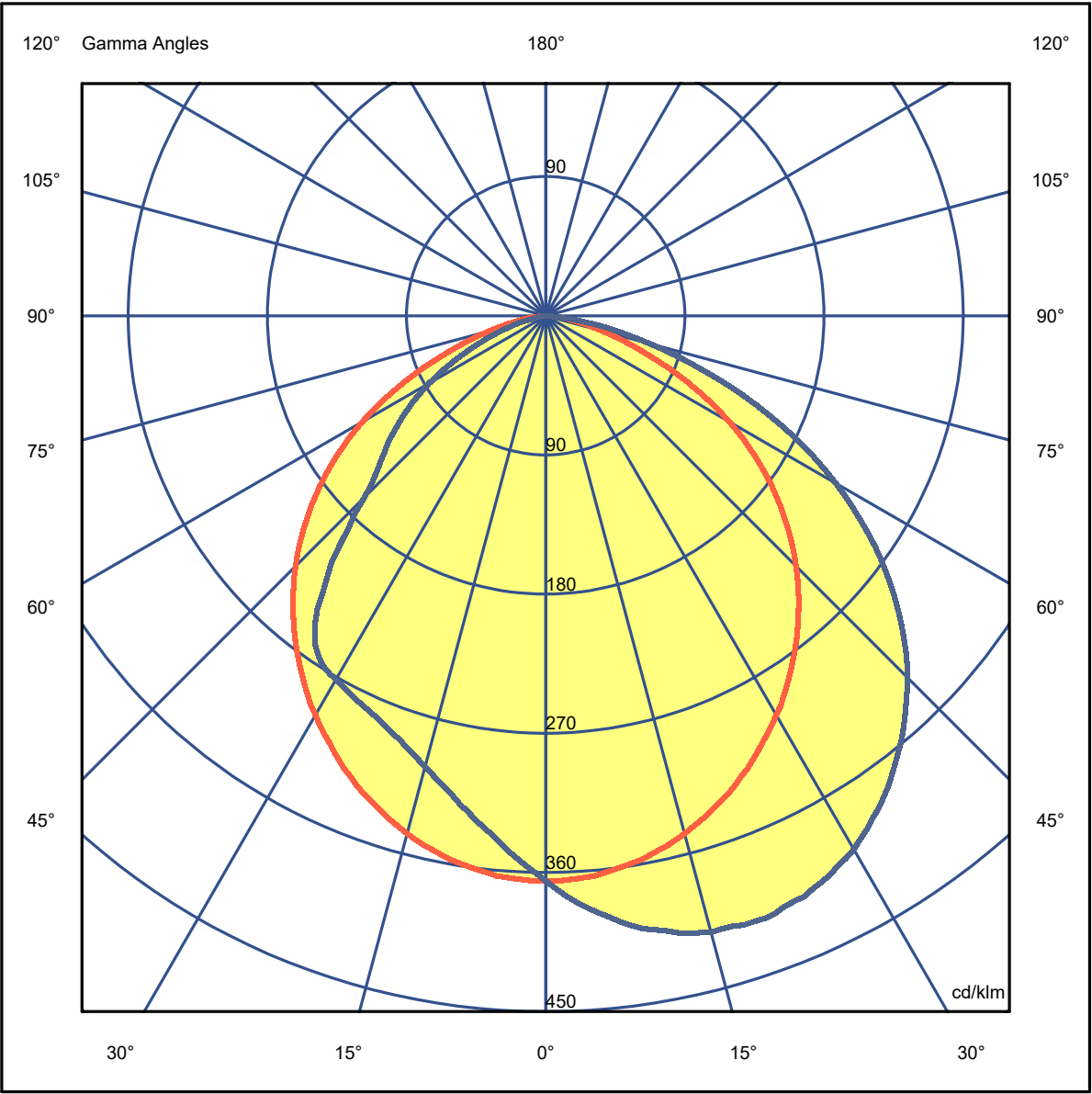
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Source Flux	566 lm	Maximum value	414.51 cd/klm	Position	C=90.00 G=20.00	CG	Asymmetrical

Luminous Intensity Table cd/klm Table 4/4

	C 195.00	C 210.00	C 225.00	C 240.00	C 255.00	C 270.00	C 285.00	C 300.00	C 315.00	C 330.00	C 345.00
G 73.0	45.13	43.21	42.01	35.39	30.27	24.34	30.27	35.39	42.01	43.21	45.13
G 74.0	40.16	38.03	37.06	31.60	25.99	20.95	25.99	31.60	37.06	38.03	40.16
G 75.0	35.57	33.55	32.26	28.73	21.87	17.87	21.87	28.73	32.26	33.55	35.57
G 76.0	31.19	29.17	27.94	25.58	15.70	14.81	15.70	25.58	27.94	29.17	31.19
G 77.0	26.99	25.33	23.90	21.95	12.37	9.35	12.37	21.95	23.90	25.33	26.99
G 78.0	23.41	21.66	20.31	18.52	11.08	6.21	11.08	18.52	20.31	21.66	23.41
G 79.0	19.94	18.37	17.05	15.41	10.60	6.61	10.60	15.41	17.05	18.37	19.94
G 80.0	16.96	15.49	14.20	12.70	8.63	6.58	8.63	12.70	14.20	15.49	16.96
G 81.0	14.19	12.82	11.63	10.20	6.32	4.71	6.32	10.20	11.63	12.82	14.19
G 82.0	11.69	10.51	9.24	7.56	4.47	3.10	4.47	7.56	9.24	10.51	11.69
G 83.0	9.39	8.27	6.87	4.78	2.80	1.48	2.80	4.78	6.87	8.27	9.39
G 84.0	7.30	6.33	4.43	2.60	1.13	0.46	1.13	2.60	4.43	6.33	7.30
G 85.0	5.34	4.15	2.29	0.43	0.11	0.27	0.11	0.43	2.29	4.15	5.34
G 86.0	3.76	2.35	0.16	0.22	0.09	0.09	0.09	0.22	0.16	2.35	3.76
G 87.0	2.19	0.42	0.12	0.11	0.09	0.09	0.09	0.11	0.12	0.42	2.19
G 88.0	1.49	0.26	0.12	0.10	0.08	0.08	0.08	0.10	0.12	0.26	1.49
G 89.0	0.79	0.10	0.11	0.09	0.08	0.08	0.08	0.09	0.11	0.10	0.79
G 90.0	0.09	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.09

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Source Flux	566 lm	Maximum value	414.51 cd/klm	Position	C=90.00 G=20.00	CG	Asymmetrical



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Source Flux	566 lm	Maximum value	414.51 cd/klm	Position	C=90.00 G=20.00	CG	Asymmetrical



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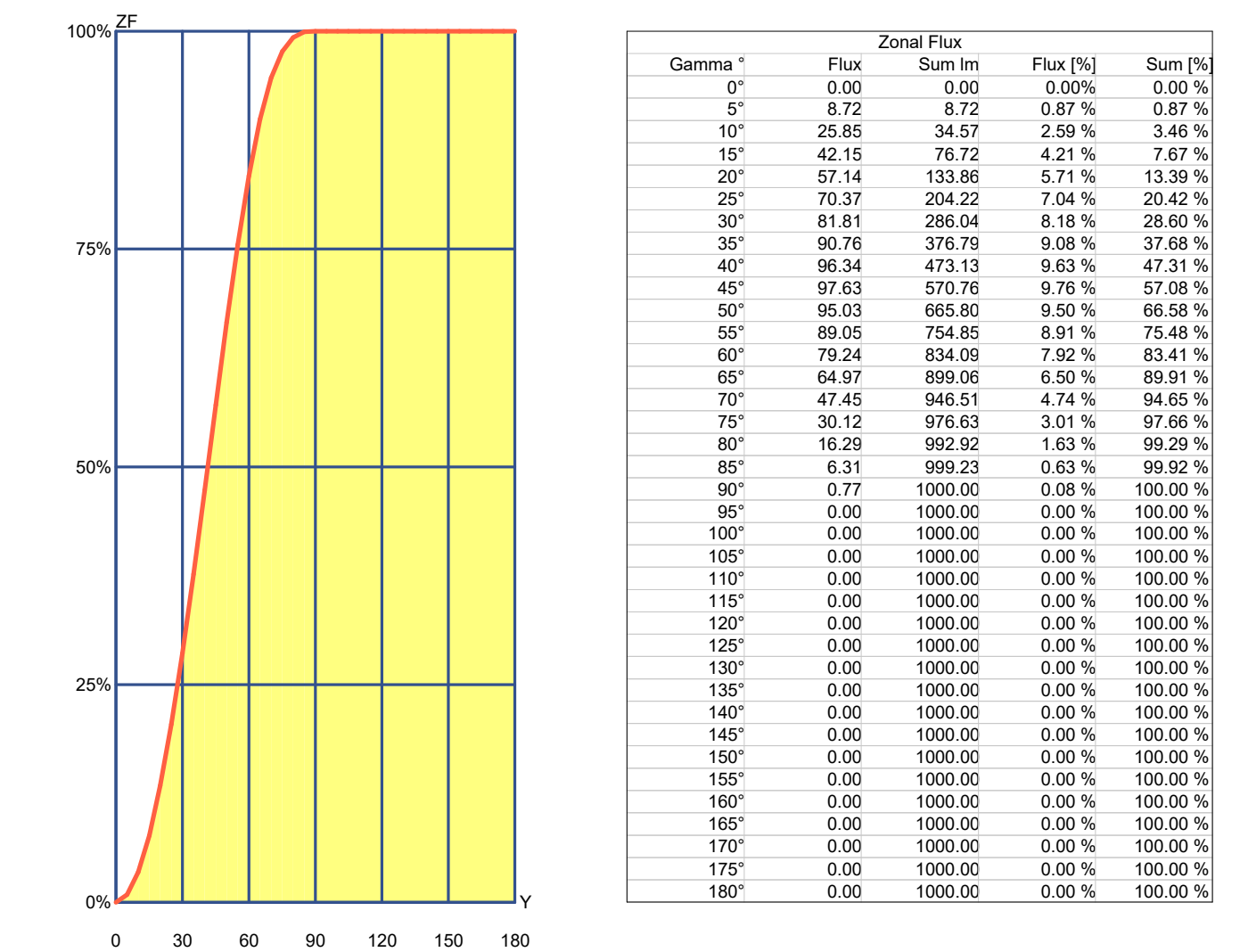
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Source Flux	566 lm	Maximum value	414.51 cd/klm	Position	C=90.00 G=20.00	CG	Asymmetrical

UGR
S = 0.250

Reflectancies										
Ceiling/Cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Working Plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room Dimensions										
	Lateral View					Viewed Endwise				
x=2H y=2H	27.4	28.7	27.7	28.9	29.2	26.0	27.2	26.2	27.4	27.7
x=2H y=3H	28.4	29.6	28.7	29.8	30.1	26.6	27.7	26.9	28.0	28.2
x=2H y=4H	28.7	29.7	29.0	30.0	30.3	26.7	27.7	27.0	28.0	28.3
x=2H y=6H	28.8	29.8	29.2	30.1	30.4	26.6	27.6	27.0	27.9	28.2
x=2H y=8H	28.8	29.8	29.2	30.1	30.4	26.6	27.6	27.0	27.9	28.2
x=2H y=12H	28.8	29.7	29.2	30.1	30.4	26.6	27.5	26.9	27.8	28.1
x=4H y=2H	28.1	29.2	28.5	29.5	29.8	26.6	27.7	27.0	28.0	28.3
x=4H y=3H	29.2	30.2	29.6	30.5	30.8	27.4	28.3	27.8	28.7	29.0
x=4H y=4H	29.6	30.4	30.0	30.7	31.1	27.6	28.4	28.0	28.7	29.1
x=4H y=6H	29.8	30.5	30.2	30.8	31.2	27.6	28.3	28.0	28.7	29.1
x=4H y=8H	29.8	30.4	30.2	30.8	31.2	27.6	28.2	28.0	28.6	29.0
x=4H y=12H	29.8	30.4	30.3	30.8	31.2	27.5	28.1	28.0	28.5	29.0
x=8H y=4H	29.8	30.4	30.2	30.8	31.2	27.7	28.4	28.2	28.8	29.2
x=8H y=6H	30.0	30.5	30.5	30.9	31.4	27.8	28.3	28.3	28.7	29.2
x=8H y=8H	30.1	30.5	30.6	31.0	31.5	27.8	28.2	28.3	28.7	29.2
x=8H y=12H	30.1	30.5	30.6	31.0	31.5	27.8	28.2	28.3	28.6	29.1
x=12H y=4H	29.8	30.3	30.2	30.7	31.2	27.7	28.3	28.2	28.7	29.1
x=12H y=6H	30.0	30.5	30.5	30.9	31.4	27.8	28.3	28.3	28.7	29.2
x=12H y=8H	30.1	30.5	30.6	31.0	31.5	27.8	28.2	28.3	28.7	29.2

Luminaire							
Code	10-9055-DQ-DQ_2700K						
Name	MACA						
Measurem.							
Code	10-9055-DQ-DQ_2700K						
Name	MACA						
Luminaire Flux	566 lm	Luminaire Power	9.0 W	Efficacy	62.889 lm/W	Efficiency	100.00%
Source Flux	566 lm	Maximum value	414.51 cd/klm	Position	C=90.00 G=20.00	CG	Asymmetrical

Total Flux=566.00 Luminaire Flux=566.00												
RI	0.60	0.80	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	10.00	20.00
DRR	0.32	0.41	0.49	0.57	0.62	0.71	0.77	0.80	0.85	0.88	0.94	0.97
RC	5	5	4	4	4	4	4	4	4	4	4	4
Zonal Flux per 1000 Lumen												
Y°	10	20	30	40	50	60	70	80	90	100	110	120
ZF(Y)	35	134	286	473	666	834	947	993	1000	1000	1000	1000
CIE Flux Codes												
50 83 98 100 100												
C.I.E.	5/5/4/4/4/4/4/4/4/4/4/4/4											
D DIN 5040	A30											
F UTE	1.00 E											
B NBN	BZ 4											
RN	0.00000 %											
BLF	1.0											
LOR	100.00000 %											
ULOR	0.00000 %											
DLOR	100.00000 %											
UFF	0.00000 %											
DFF	100.00000 %											
FFR	0.00000 %											



Luminaire

Code 10-9055-DQ-DQ_2700K
Name MACA

Measurem.

Code 10-9055-DQ-DQ_2700K
Name MACA

Luminaire Flux	566 lm	Luminaire Power	9.0 W	Efficacy	62.889 lm/W	Efficiency	100.00%
Source Flux	566 lm	Maximum value	414.51 cd/klm	Position	C=90.00 G=20.00	CG Asymmetrical	

Utilizations CIE

Mounting	Direct				Normalization				Normalised				Suspension Ratid/3								Standard CIE Settings							
Ceiling																												
K	8873	8773	8871	8771	7773	7771	7753	7553	7751	7551	7731	7331	7711	7111	5551	5531	5331	5511	5111	3331	3311	1111	0000					
0.60	215	193	168	152	184	145	111	94	86	73	46	35	17	12	68	37	33	14	11	31	12	10	0					
0.80	248	228	178	164	217	157	139	122	98	86	55	44	23	17	80	46	42	20	16	39	17	15	0					
1.00	270	252	178	167	239	160	162	145	104	93	62	51	29	23	87	53	48	25	22	46	22	20	0					
1.25	290	273	175	166	259	159	185	168	108	98	68	58	36	29	93	59	55	32	28	52	28	26	0					
1.50	303	288	170	162	274	156	204	188	110	102	72	63	42	35	96	64	60	37	33	57	34	31	0					
2.00	321	308	159	153	294	148	233	218	110	104	79	71	52	45	99	71	67	47	43	65	43	40	0					
2.50	332	322	150	146	307	142	253	240	110	105	83	76	59	52	100	76	73	55	50	70	51	47	0					
3.00	340	331	144	141	316	137	269	257	110	105	86	80	65	58	101	79	77	60	56	74	56	53	0					
4.00	352	345	136	134	330	131	291	281	109	106	90	85	73	67	102	85	82	69	65	79	65	62	0					
5.00	360	354	131	130	339	127	306	297	109	107	93	89	79	74	103	88	86	75	71	83	71	68	0					
10.00	377	373	121	120	358	118	340	334	109	108	100	98	92	88	104	96	95	88	86	92	85	82	0					
20.00	385	384	115	115	369	113	359	356	108	108	104	102	99	97	105	100	100	96	95	97	93	91	0					

Wall

K	8873	8773	8871	8771	7773	7771	7753	7553	7751	7551	7731	7331	7711	7111	5551	5531	5331	5511	5111	3331	3311	1111	0000
0.60	461	449	402	393	443	389	349	341	314	309	263	259	227	225	306	259	258	225	224	257	224	224	204
0.80	515	502	434	426	493	420	401	392	350	345	301	295	263	261	340	296	294	261	260	292	260	259	235
1.00	548	536	449	442	524	435	437	427	372	366	325	319	288	285	361	319	317	286	284	314	284	282	255
1.25	576	564	457	451	550	444	470	459	388	383	345	339	310	306	376	338	336	307	305	333	304	302	272
1.50	595	584	461	456	568	449	494	483	399	394	359	353	326	322	386	351	349	322	320	345	319	316	283
2.00	611	602	454	450	583	443	519	509	403	398	369	364	340	336	390	360	358	335	333	354	331	327	291
2.50	620	611	447	444	591	436	535	525	403	399	374	369	349	344	390	365	363	343	340	357	337	333	294
3.00	623	616	439	436	594	429	545	535	400	397	375	370	353	348	387	365	364	346	343	357	340	335	293
4.00	634	628	434	432	603	425	563	555	402	399	381	377	363	359	389	371	370	355	353	363	348	342	298
5.00	642	637	432	431	611	424	577	570	405	403	387	384	371	367	392	377	375	363	361	368	355	348	302
10.00	662	658	430	429	630	422	610	605	412	410	402	399	392	389	399	390	389	382	380	380	372	364	313
20.00	666	664	422	421	634	415	623	620	409	409	404	402	398	397	397	392	391	387	386	381	377	367	314

Working Pl.

K	8873	8773	8871	8771	7773	7771	7753	7553	7751	7551	7731	7331	7711	7111	5551	5531	5331	5511	5111	3331	3311	1111	0000
0.60	606	593	565	556	585	550	471	463	453	448	388	384	341	339	444	384	382	339	339	381	339	338	321
0.80	718	703	661	652	691	644	578	568	551	544	485	479	435	433	538	479	477	433	432	474	431	430	413
1.00	804	790	733	724	774	715	665	653	629	622	565	558	515	511	614	557	554	512	510	551	509	507	490
1.25	885	870	797	789	851	779	749	736	702	694	642	634	594	589	684	632	629	589	586	624	585	582	565
1.50	944	930	843	836	908	825	812	799	755	748	699	691	653	648	736	688	685	647	644	679	642	638	622
2.00	1000	1000	907	901	990	889	908	894	832	826	785	777	745	738	812	772	769	737	733	761	730	724	709
2.50	1000	1000	945	941	1000	929	971	957	881	875	840	833	805	798	860	825	822	795	791	813	786	779	765
3.00	1000	1000	971	967	1000	955	1000	1000	914	910	879	872	847	840	893	863	860	836	832	849	826	817	804
4.00	1000	1000	1000	998	1000	986	1000	1000	954	950	925	919	899	893	932	908	906	886	882	893	874	863	851
5.00	1000	1000	1000	1000	1000	1000	1000	1000	977	974	953	948	931	925	956	935	933	916	913	919	903	891	879
10.00	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	999	995	1000	992	990	981	979	973	964	948
20.00	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	997	979	969

LM53 SHR C0-C180: 1.214 SHR C90-C270: 1.535 SHR Square: 1.515

LedsC4

Luminaire

Code 10-9055-DQ-DQ_2700K
Name MACA

Measurement

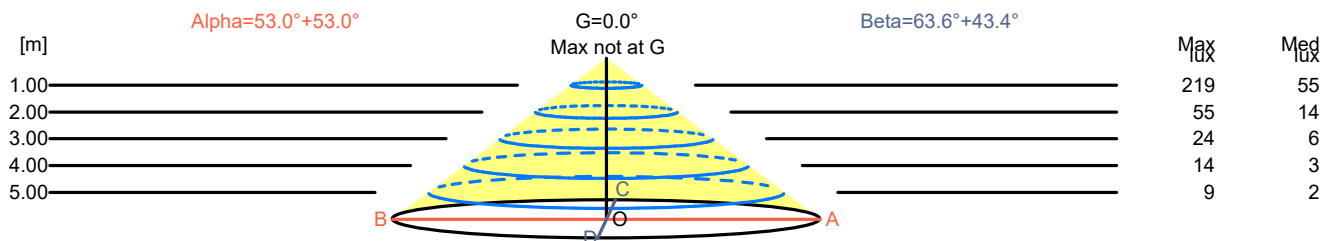
Code 10-9055-DQ-DQ_2700K
Name MACA

Luminaire Flux	566 lm	Luminaire Power	9.0 W	Efficacy	62.889 lm/W	Efficiency	100.00%
Source Flux	566 lm	Maximum value	414.51 cd/klm	Position	C=90.00 G=20.00	CG Asymmetrical	

Width at 50.00 % of Max Intensity

H[m]	1.00	2.00	3.00	4.00	5.00	H[m]	1.00	2.00	3.00	4.00	5.00
OA	1.33	2.66	3.99	5.31	6.64	OC	2.01	4.02	6.03	8.04	10.05
OB	1.33	2.66	3.99	5.31	6.64	OD	0.95	1.89	2.84	3.79	4.73

	0	5	15	25	35	45	55	65	75	85
OA	206.89	205.78	196.20	179.32	156.86	129.51	96.45	56.83	21.27	3.55
OB	206.89	205.78	196.20	179.32	156.86	129.51	96.45	56.83	21.27	3.55
OC	206.89	219.28	233.62	231.35	215.43	187.29	147.15	95.37	39.47	3.05
OD	206.89	193.46	170.82	157.70	147.09	93.92	63.69	33.84	10.11	0.15



H[m]	D[m]	Max lux	Med lux	Alpha=53.0°+53.0°	G=0.0° Max not at G	
1.00	2.66	219	55			
2.00	5.31	55	14			
3.00	7.97	24	6			
4.00	10.63	14	3			
5.00	13.29	9	2			

H[m]	D[m]	Max lux	Med lux	Beta=43.4°+63.6°	G=0.0° Max not at G	
1.00	2.96	219	55			
2.00	5.91	55	14			
3.00	8.87	24	6			
4.00	11.83	14	3			
5.00	14.78	9	2			

Luminaire

Code 10-9055-DQ-DQ_2700K
Name MACA

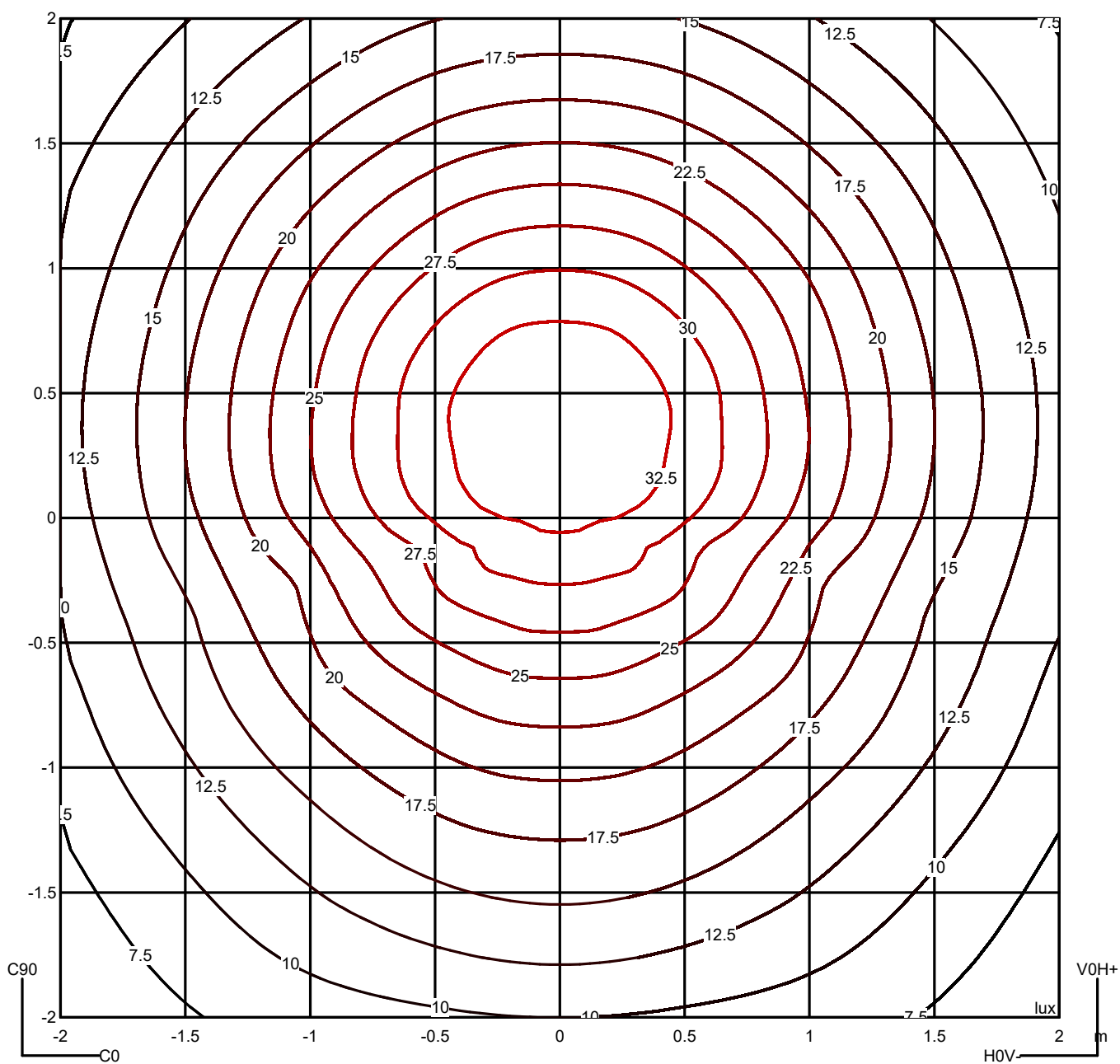
Measurement

Code 10-9055-DQ-DQ_2700K
Name MACA

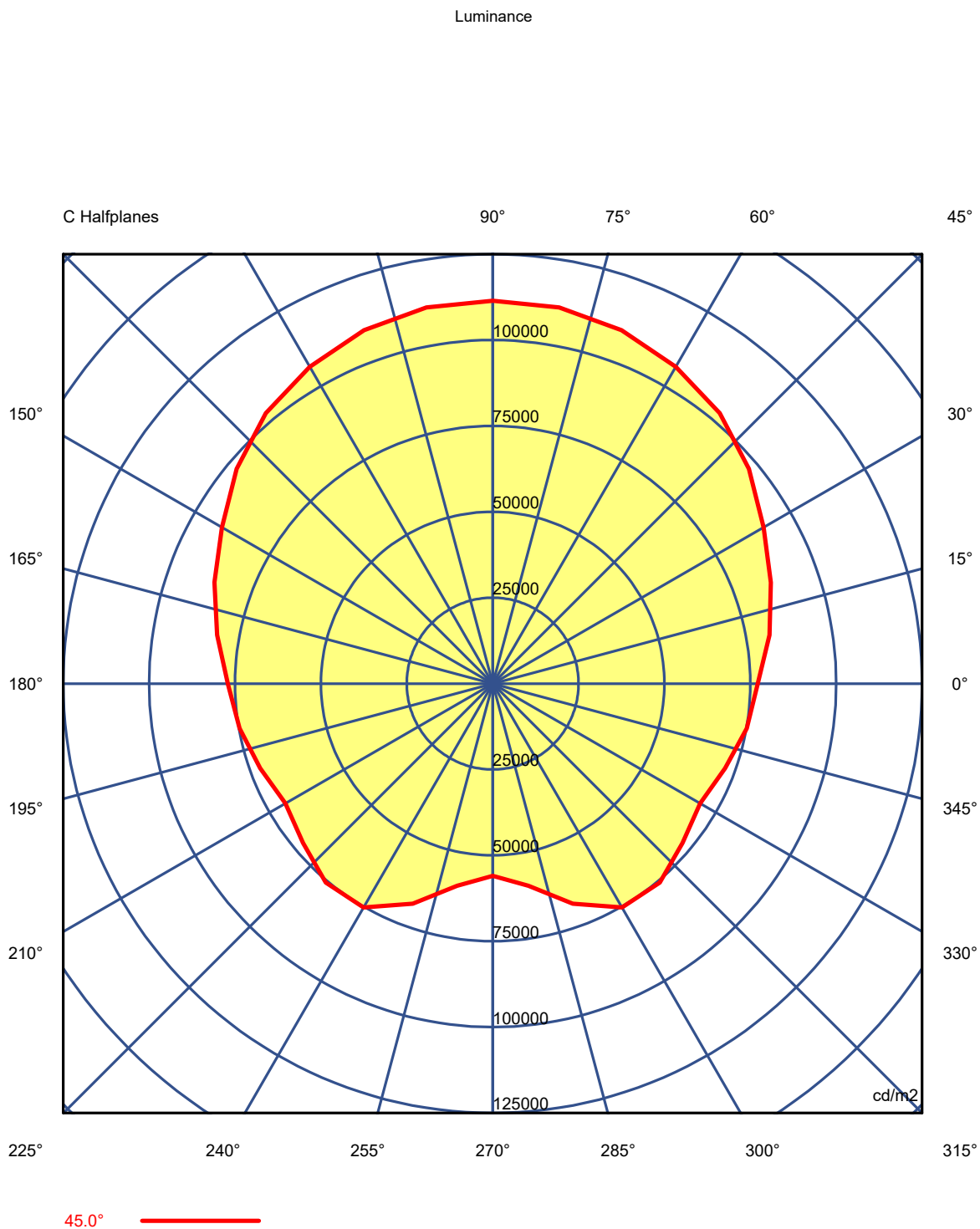
Luminaire Flux	566 lm	Luminaire Power	9.0 W	Efficacy	62.889 lm/W	Efficiency	100.00%
Source Flux	566 lm	Maximum value	414.51 cd/klm	Position	C=90.00 G=20.00	CG	Asymmetrical

Isolux (Floor)

Luminaire position X=0.00m Y=0.00m Z=2.50m



Luminaire							
Code	10-9055-DQ-DQ_2700K						
Name	MACA						
Measurem.							
Code	10-9055-DQ-DQ_2700K						
Name	MACA						
Luminaire Flux	566 lm	Luminaire Power	9.0 W	Efficacy	62.889 lm/W	Efficiency	100.00%
Source Flux	566 lm	Maximum value	414.51 cd/klm	Position	C=90.00 G=20.00	CG	Asymmetrical



Luminaire

Code 10-9055-DQ-DQ_2700K
Name MACA

Measurment

Code 10-9055-DQ-DQ_2700K
Name MACA

Luminaire Flux		566 lm		Luminaire Power		9.0 W		Efficacy		62.889 lm/W		Efficiency		100.00%	
Source Flux		566 lm		Maximum value		414.51 cd/klm		Position		C=90.00 G=20.00		CG Asymmetrical			
Luminance cd/m2														Table 1/3	
		C 0.00	C 10.00	C 20.00	C 30.00	C 40.00	C 50.00	C 60.00	C 70.00	C 80.00	C 90.00	C 100.00	C 110.00	C 120.00	
G 0.0	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01
G 5.0	86944.14	88226.81	89054.20	89653.88	90629.71	91420.36	91884.37	92412.50	92617.90	92649.99	92671.88	92413.23	91884.37		91884.37
G 10.0	86365.96	88865.08	90617.27	91872.50	93503.51	94959.92	96001.12	96917.41	97434.39	97525.47	97434.35	96917.49	96001.12		96001.12
G 15.0	85493.73	88892.60	91401.79	93343.51	95767.75	97883.27	99385.77	100729.38	101578.40	101800.30	101578.10	100730.04	99385.77		99385.77
G 20.0	84479.32	88449.52	91669.03	94391.90	97470.55	100208.00	102248.40	103854.41	104817.52	105087.25	104817.32	103854.86	102248.40		102248.40
G 25.0	83280.17	87797.59	91573.29	94907.05	98652.54	101811.35	104116.19	106171.07	107287.52	107443.74	107286.97	106172.29	104116.19		104116.19
G 30.0	81983.16	86742.26	90975.98	94977.70	99385.44	103035.61	105645.68	107932.09	109282.52	109575.39	109282.21	107932.75	105645.68		105645.68
G 35.0	80600.64	85552.45	89924.83	94242.49	99412.82	103599.30	106403.53	109013.82	110482.27	110692.40	110482.33	109013.71	106403.53		106403.53
G 40.0	79057.98	83865.37	88356.95	93110.93	98878.28	103658.22	106904.16	109703.36	111137.22	111269.73	111137.47	109702.81	106904.16		106904.16
G 45.0	77091.15	81762.09	86152.83	91015.75	97301.35	102763.18	106535.55	109546.59	111181.86	111483.56	111182.46	109545.27	106535.55		106535.55
G 50.0	74408.27	79265.36	83239.96	87667.18	94661.69	100836.65	104909.37	108415.33	110230.50	110410.05	110231.31	108413.57	104909.37		104909.37
G 55.0	70777.56	75624.22	79171.80	83279.95	90966.94	97615.02	101821.51	106096.00	108123.75	107980.45	108124.60	106094.14	101821.51		101821.51
G 60.0	65357.78	70124.05	73281.75	77105.25	85304.62	92257.39	96507.04	101399.18	103077.81	103091.42	103554.67	101397.61	96507.04		96507.04
G 65.0	56599.96	61562.40	64479.56	67983.79	76498.51	83461.41	87635.22	93452.42	95298.15	94983.29	95298.15	93450.82	87635.22		87635.22
G 70.0	45312.75	49820.37	52169.74	55045.09	63034.79	69556.57	73645.11	80002.76	81925.59	81398.06	81925.59	80001.16	73645.11		73645.11
G 75.0	34590.08	38083.11	39824.50	42080.92	48650.54	53888.62	57238.63	63000.62	64733.37	64190.69	64733.37	62999.42	57238.63		57238.63
G 80.0	25369.84	27940.17	29414.38	31155.23	35388.27	38322.51	40576.95	45966.99	47755.63	46174.73	47755.91	45966.37	40576.95		40576.95
G 85.0	17130.05	19816.60	20578.28	19533.90	18233.55	15962.58	13602.23	13386.72	14246.46	14745.86	14246.74	13386.09	13602.23		13602.23
G 90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00

Luminaire

Code 10-9055-DQ-DQ_2700K
Name MACA

Measurem.

Code 10-9055-DQ-DQ_2700K
Name MACA

Luminaire Flux		566 lm		Luminaire Power		9.0 W		Efficacy		62.889 lm/W		Efficiency		100.00%	
Source Flux		566 lm		Maximum value		414.51 cd/klm		Position		C=90.00 G=20.00		CG Asymmetrical			
Luminance cd/m2														Table 2/3	
		C 130.00	C 140.00	C 150.00	C 160.00	C 170.00	C 180.00	C 190.00	C 200.00	C 210.00	C 220.00	C 230.00	C 240.00	C 250.00	
G 0.0	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01
G 5.0	91416.42	90639.66	89653.88	88999.41	88365.27	86944.14	84447.46	83608.19	84297.85	83712.22	82776.20	82306.03	82054.73	82054.73	
G 10.0	94959.46	93504.67	91872.50	90610.88	88881.24	86365.96	83745.62	82133.85	81381.10	80324.78	79189.81	78387.81	78028.85	78028.85	
G 15.0	97879.77	95776.58	93343.51	91353.14	89015.56	85493.73	81073.30	78935.83	78863.48	77595.90	76129.09	75383.77	75055.41	75055.41	
G 20.0	100205.58	97476.65	94391.90	91635.41	88534.49	84479.32	79860.45	77288.45	76684.64	75495.16	74199.31	73499.25	73370.32	73370.32	
G 25.0	101804.82	98669.04	94907.05	91482.36	88027.40	83280.17	76909.37	74877.37	75093.97	74347.25	73216.34	72992.58	73252.24	73252.24	
G 30.0	103032.04	99394.46	94977.70	90926.28	86867.89	81983.16	76377.62	74422.09	74266.99	73778.52	73332.87	73717.95	74339.85	74339.85	
G 35.0	103599.94	99411.22	94242.49	89933.65	85530.16	80600.64	76182.10	74503.35	74001.58	73837.62	74162.72	74966.37	75306.19	75306.19	
G 40.0	103661.20	98870.74	93110.93	88398.50	83760.37	79057.98	75539.90	73567.08	73005.31	73550.38	75148.78	75714.84	72625.16	72625.16	
G 45.0	102770.29	97283.42	91015.75	86251.67	81512.28	77091.15	74829.36	72020.62	69731.97	72077.59	75611.35	75219.52	68122.67	68122.67	
G 50.0	100846.10	94637.82	87667.18	83371.51	78932.88	74408.27	72591.02	69611.06	66872.81	70113.98	74494.74	73535.81	64412.35	64412.35	
G 55.0	97625.03	90941.65	83279.95	79311.18	75271.96	70777.56	69138.22	66557.56	64168.69	67317.11	71199.89	70012.27	61541.65	61541.65	
G 60.0	92265.82	85283.33	77105.25	73399.01	69827.68	65357.78	63499.47	62526.51	61641.21	62097.30	63989.12	63544.01	55923.72	55923.72	
G 65.0	83469.98	76476.87	67983.79	64598.78	61261.07	56599.96	55250.46	54263.80	53639.96	50477.91	51057.16	52783.28	46463.04	46463.04	
G 70.0	69565.13	63013.17	55045.09	52288.82	49519.40	45312.75	43663.93	42901.88	41962.66	41425.09	40089.64	37353.78	33493.27	33493.27	
G 75.0	53895.01	48634.41	42080.92	39913.40	37858.42	34590.08	33162.34	32155.98	30883.59	30136.82	28995.97	26445.93	22298.21	22298.21	
G 80.0	38325.82	35379.92	31155.23	29460.35	27823.99	25369.84	23849.45	22636.42	21252.12	19988.41	19054.93	17424.80	13769.14	13769.14	
G 85.0	15965.94	18225.05	19533.90	20625.07	19698.33	17130.05	15351.92	13706.01	11348.45	8138.68	4320.22	1161.86	221.37	221.37	
G 90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Luminaire

Code 10-9055-DQ-DQ_2700K
Name MACA

Measurem.

Code 10-9055-DQ-DQ_2700K
Name MACA

Luminaire Flux	566 lm	Luminaire Power		9.0 W		Efficacy	62.889 lm/W		Efficiency		100.00%
Source Flux	566 lm	Maximum value		414.51 cd/klm		Position	C=90.00 G=20.00		CG	Asymmetrical	
Luminance cd/m2						Table 3/3					
		C 260.00	C 270.00	C 280.00	C 290.00	C 300.00	C 310.00	C 320.00	C 330.00	C 340.00	C 350.00
G 0.0	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01	87080.01
G 5.0	81852.70	81738.23	81853.03	82054.00	82306.03	82780.13	83702.28	84297.85	83662.98	84309.00	
G 10.0	77739.54	77530.30	77739.58	78028.77	78387.81	79190.27	80323.62	81381.10	82140.25	83729.46	
G 15.0	74702.03	74433.86	74702.32	75054.76	75383.77	76132.59	77587.07	78863.48	78984.49	80950.34	
G 20.0	73197.79	72976.53	73198.00	73369.87	73499.25	74201.72	75489.05	76684.64	77322.07	79775.48	
G 25.0	73345.30	73239.58	73345.85	73251.02	72992.58	73222.87	74330.75	75093.97	74877.37	76679.56	
G 30.0	74696.33	74736.06	74696.63	74339.19	73717.95	73336.45	73769.50	74266.99	74422.09	76251.99	
G 35.0	75461.04	75578.70	75460.99	75306.31	74966.37	74162.09	73839.22	74001.58	74503.35	76204.39	
G 40.0	69378.30	68354.25	69378.05	72625.72	75714.84	75145.79	73557.92	73005.31	73525.54	75644.90	
G 45.0	59706.37	55907.89	59705.77	68123.99	75219.52	75604.25	72095.52	69731.97	71921.78	75079.17	
G 50.0	54451.29	50340.07	54450.49	64414.11	73535.81	74485.29	70137.86	66872.81	69479.51	72923.49	
G 55.0	51474.04	46735.92	51473.19	61543.52	70012.27	71189.87	67342.40	64168.69	66418.18	69490.49	
G 60.0	46212.83	41509.37	46212.11	55925.29	63544.01	63130.60	62118.58	61641.21	62409.25	63795.84	
G 65.0	37716.05	33707.03	37715.32	46464.64	52783.28	51048.60	50499.54	53639.96	54498.93	54996.99	
G 70.0	28206.78	24857.24	28206.05	33494.86	37353.78	40081.09	41446.70	41962.66	42782.80	43964.89	
G 75.0	18255.22	16444.18	18254.67	22299.40	26445.93	28989.58	30152.96	30883.59	32067.08	33387.02	
G 80.0	10327.12	9021.04	10326.84	13769.75	17424.80	19051.63	19996.75	21252.12	22590.45	23965.64	
G 85.0	487.83	747.42	487.55	222.00	1161.86	4316.86	8147.17	11348.45	13659.21	15470.18	
G 90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Luminaire

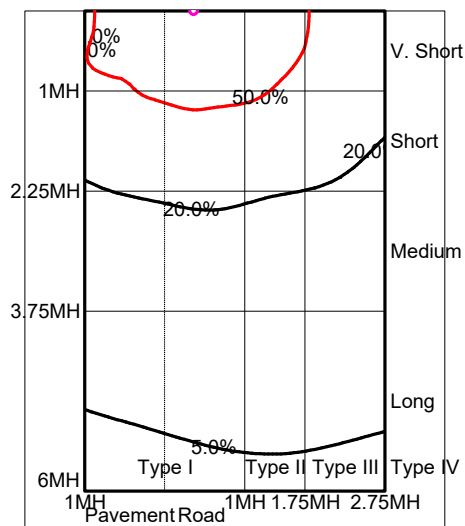
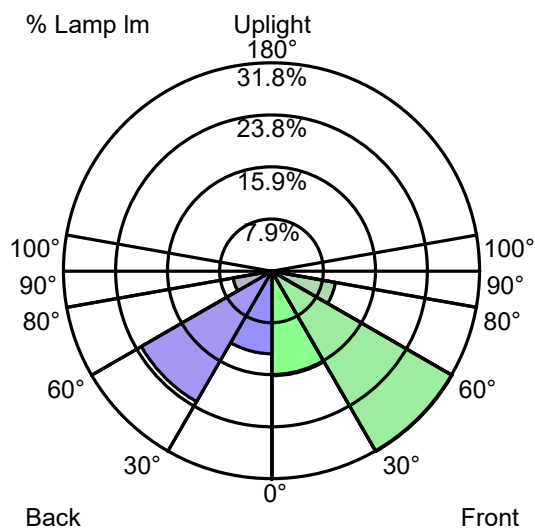
Code 10-9055-DQ-DQ_2700K
Name MACA

Measurem.

Code 10-9055-DQ-DQ_2700K
Name MACA

Luminaire Flux	566 lm	Luminaire Power	9.0 W	Efficacy	62.889 lm/W	Efficiency	100.00%
Source Flux	566 lm	Maximum value	414.51 cd/klm	Position	C=90.00 G=20.00	CG	Asymmetrical

US ROAD STANDARDS



Luminaire Classification System (LCS)				
LCS Zone		Lumens	%Lamp	%Lum
FL	0° -- 30°	90.4 lm	16.0 %	16.0 %
FM	30° -- 60°	180.0 lm	31.8 %	31.8 %
FH	60° -- 80°	55.8 lm	9.9 %	9.9 %
FVH	80° -- 90°	2.7 lm	0.5 %	0.5 %
BL	0° -- 30°	71.5 lm	12.6 %	12.6 %
BM	30° -- 60°	130.3 lm	23.0 %	23.0 %
BH	60° -- 80°	34.0 lm	6.0 %	6.0 %
BVH	80° -- 90°	1.3 lm	0.2 %	0.2 %
UL	90° -- 100°	0.0 lm	0.0 %	0.0 %
UH	100° -- 180°	0.0 lm	0.0 %	0.0 %
TOTALS		566.0 lm	100.0 %	100.0 %
BUG B0 U0 G0 Type III Very Short Asymmetrical				