

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P838709

Luminaire Tested: HCSQ655D010-HM64560840-61SQC

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838709
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ655D010-HM64560840-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

Summary

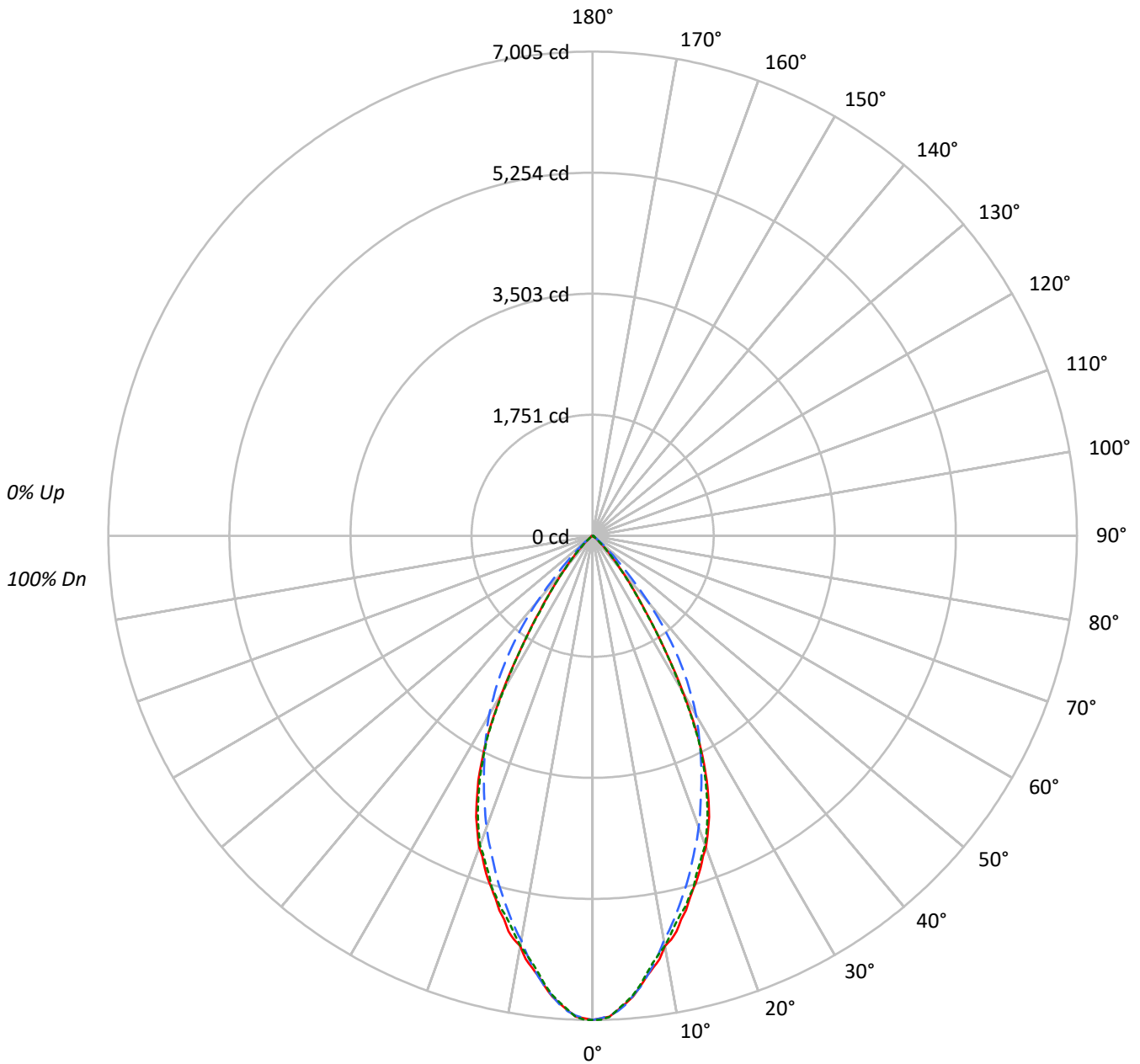
Lumens per Lamp: N/A
Luminaire Lumens: 5246.8 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 54
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94																			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76																			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71																			
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66																			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62																			
8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59																			
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55																			
10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	301596	301596	301596
5°	289298	288793	288391
10°	263491	259915	263290
15°	242155	233290	240693
20°	219756	205608	218254
25°	185727	176725	183171
30°	130043	148771	127831
35°	69849	114121	68498
40°	34583	70616	34319
45°	15101	29775	14815
50°	4856	10811	4856
55°	2462	3513	2282
60°	1610	1610	1610
65°	1192	1192	1192
70°	881	881	881
75°	782	782	782
80°	570	570	570
85°	1136	1136	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 29775 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	615.1	11.7
10°-20°	1485.3	28.3
20°-30°	1715.8	32.7
30°-40°	1071.5	20.4
40°-50°	297.7	5.7
50°-60°	41.6	0.8
60°-70°	12.3	0.2
70°-80°	5.2	0.1
80°-90°	2.2	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3816.2	72.7
0°-40°	4887.7	93.2
0°-60°	5227.0	99.6
0°-90°	5246.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5246.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7005	7005	7005	7005	7005	
5°	6694	6675	6682	6673	6673	617
15°	5433	5330	5234	5316	5400	1522
25°	3910	3795	3720	3792	3856	1746
35°	1329	1640	2171	1621	1303	883
45°	248	316	489	314	243	215
55°	33	33	47	33	30	32
65°	12	12	12	12	12	12
75°	5	5	5	5	5	5
85°	2	2	2	2	2	2
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7004.8	7004.8	7004.8	7004.8	7004.8
1°	6983.7	6983.7	6983.7	7002.5	7002.5
2°	6962.7	6958.0	6946.3	6960.3	6967.4
3°	6876.1	6885.5	6890.2	6883.1	6866.8
4°	6787.2	6777.9	6803.6	6787.2	6773.2
5°	6693.6	6674.9	6681.9	6672.6	6672.6
6°	6562.6	6586.0	6567.3	6550.9	6541.6
7°	6419.9	6438.6	6426.9	6403.5	6387.1
8°	6307.6	6295.9	6277.2	6272.5	6244.4
9°	6200.0	6157.9	6115.7	6122.8	6129.8
10°	6026.8	6031.5	5945.0	6010.5	6022.2
11°	5954.3	5928.6	5813.9	5867.7	5886.5
12°	5849.0	5767.1	5668.9	5713.3	5748.4
13°	5697.0	5612.7	5523.8	5591.7	5626.8
14°	5582.3	5486.4	5374.1	5460.7	5533.2
15°	5432.6	5329.6	5233.7	5315.6	5399.8
16°	5301.6	5182.2	5086.3	5165.9	5292.2
17°	5186.9	5039.5	4922.5	5006.8	5128.4
18°	5053.6	4882.8	4775.1	4864.1	5002.1
19°	4906.2	4733.0	4637.1	4709.6	4868.7
20°	4796.2	4602.0	4487.4	4557.6	4763.4
22.5°	4403.1	4199.6	4094.3	4178.5	4342.3
25°	3909.5	3794.8	3720.0	3792.5	3855.7
27.5°	3324.6	3324.6	3350.3	3319.9	3301.2
30°	2615.7	2805.2	2992.4	2795.8	2571.2
32.5°	1909.1	2213.3	2589.9	2253.0	1906.8
35°	1328.9	1640.1	2171.2	1621.4	1303.2
37.5°	924.1	1130.0	1712.6	1141.7	912.4
40°	615.3	758.0	1256.4	772.1	610.6
42.5°	402.4	500.7	811.8	503.0	393.1
45°	248.0	315.8	489.0	313.5	243.3
47.5°	145.1	187.2	285.4	189.5	142.7
50°	72.5	110.0	161.4	107.6	72.5
52.5°	42.1	58.5	88.9	56.2	42.1
55°	32.8	32.8	46.8	32.8	30.4
57.5°	25.7	25.7	25.7	25.7	23.4
60°	18.7	21.1	18.7	18.7	18.7
62.5°	16.4	16.4	14.0	16.4	14.0
65°	11.7	11.7	11.7	11.7	11.7
67.5°	9.4	9.4	9.4	9.4	9.4
70°	7.0	7.0	7.0	7.0	7.0
72.5°	4.7	7.0	4.7	7.0	7.0
75°	4.7	4.7	4.7	4.7	4.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	2.3	2.3	2.3	2.3	2.3
85°	2.3	2.3	2.3	2.3	2.3
87.5°	2.3	2.3	2.3	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

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— 0°-180° - - 45°-225° - - - - 90°-270°

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77.5°	4.7	4.7	4.7	4.7	2.3
80°	2.3	2.3	2.3	2.3	2.3

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(END OF REPORT)