

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: P838704

Luminaire Tested: HCSQ655D010-HM64560835-61SQC

Issue Date: 5/21/2024

**Test Information**

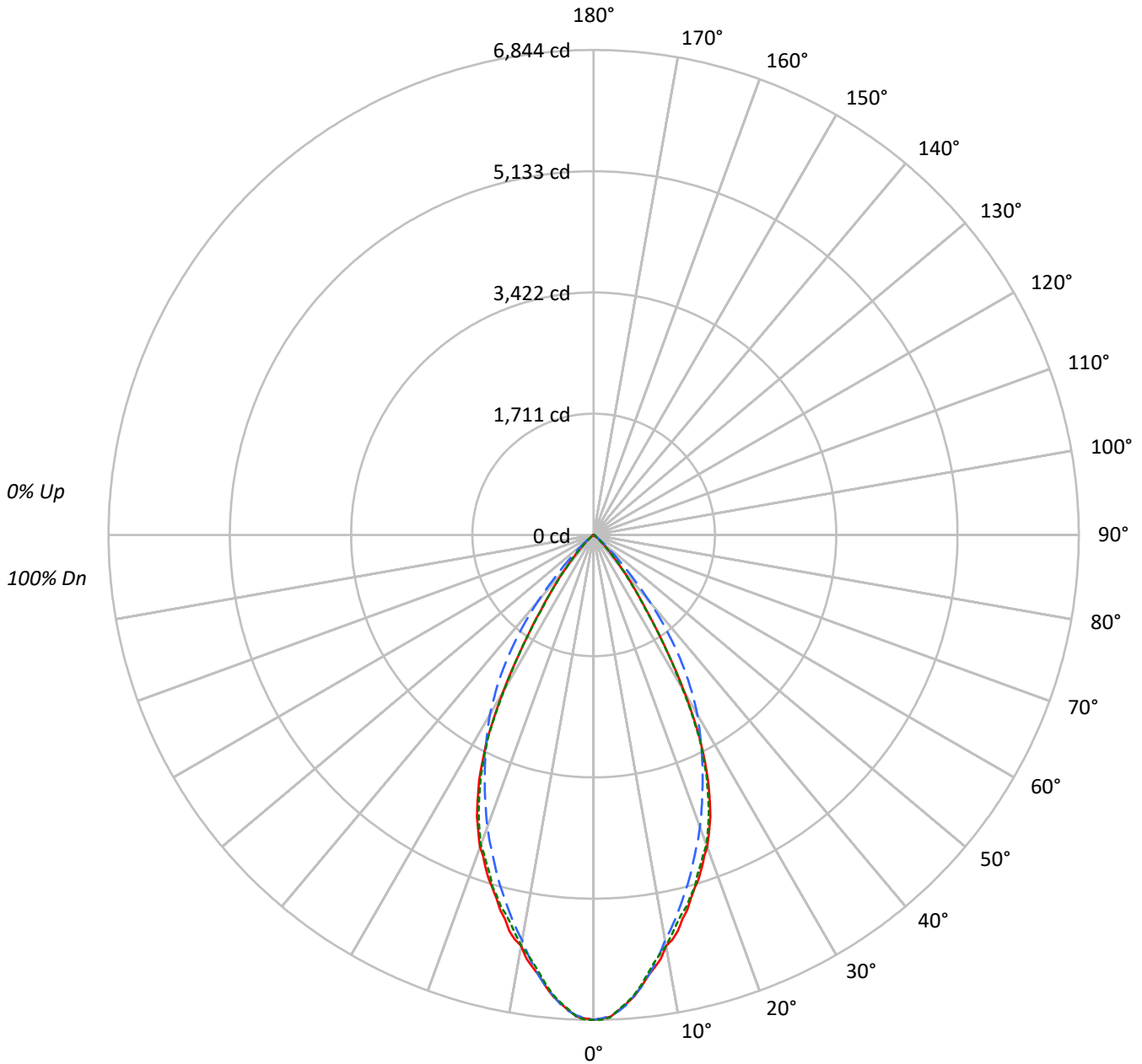
Test Method: LM-79-2019  
Report Number: P838704  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ655D010-HM64560835-61SQC  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5126.7 lumens  
Efficiency: N/A  
Efficacy: 94.9 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<sub>in</sub>): 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°	294690	294690	294690
5°	282673	282180	281787
10°	257458	253960	257256
15°	236610	227950	235184
20°	214726	200897	213259
25°	181475	172677	178977
30°	127065	145361	124902
35°	68251	111503	66926
40°	33791	68997	33538
45°	14754	29093	14474
50°	4749	10563	4749
55°	2402	3430	2229
60°	1576	1576	1576
65°	1161	1161	1161
70°	869	869	869
75°	765	765	765
80°	570	570	570
85°	1136	1136	1136

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 29093 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	601.0	11.7
10°-20°	1451.3	28.3
20°-30°	1676.5	32.7
30°-40°	1047.0	20.4
40°-50°	290.9	5.7
50°-60°	40.7	0.8
60°-70°	12.0	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°	3728.8	72.7
0°-40°	4775.8	93.2
0°-60°	5107.4	99.6
0°-90°	5126.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5126.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6844	6844	6844	6844	6844	
5°	6540	6522	6529	6520	6520	603
15°	5308	5208	5114	5194	5276	1487
25°	3820	3708	3635	3706	3767	1706
35°	1298	1602	2121	1584	1273	863
45°	242	309	478	306	238	210
55°	32	32	46	32	30	32
65°	11	11	11	11	11	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°	6844.4	6844.4	6844.4	6844.4	6844.4
1°	6823.8	6823.8	6823.8	6842.1	6842.1
2°	6803.2	6798.7	6787.2	6800.9	6807.8
3°	6718.6	6727.8	6732.4	6725.5	6709.5
4°	6631.8	6622.6	6647.8	6631.8	6618.1
5°	6540.3	6522.1	6528.9	6519.8	6519.8
6°	6412.3	6435.2	6416.9	6400.9	6391.7
7°	6272.9	6291.2	6279.7	6256.9	6240.9
8°	6163.1	6151.7	6133.4	6128.9	6101.4
9°	6058.0	6016.8	5975.7	5982.5	5989.4
10°	5888.8	5893.4	5808.8	5872.8	5884.2
11°	5818.0	5792.8	5680.8	5733.4	5751.7
12°	5715.1	5635.1	5539.1	5582.5	5616.8
13°	5566.5	5484.2	5397.3	5463.6	5497.9
14°	5454.5	5360.7	5251.0	5335.6	5406.5
15°	5308.2	5207.6	5113.9	5193.9	5276.2
16°	5180.1	5063.6	4969.8	5047.6	5171.0
17°	5068.1	4924.1	4809.8	4892.1	5011.0
18°	4937.8	4770.9	4665.8	4752.7	4887.5
19°	4793.8	4624.6	4530.9	4601.8	4757.2
20°	4686.4	4496.6	4384.6	4453.2	4654.4
22.5°	4302.3	4103.4	4000.6	4082.9	4242.9
25°	3820.0	3707.9	3634.8	3705.7	3767.4
27.5°	3248.5	3248.5	3273.6	3243.9	3225.6
30°	2555.8	2741.0	2923.8	2731.8	2512.3
32.5°	1865.4	2162.6	2530.6	2201.4	1863.1
35°	1298.5	1602.5	2121.4	1584.2	1273.3
37.5°	903.0	1104.2	1673.4	1115.6	891.6
40°	601.2	740.7	1227.6	754.4	596.7
42.5°	393.2	489.2	793.3	491.5	384.1
45°	242.3	308.6	477.8	306.3	237.7
47.5°	141.7	182.9	278.9	185.2	139.4
50°	70.9	107.4	157.7	105.2	70.9
52.5°	41.1	57.2	86.9	54.9	41.1
55°	32.0	32.0	45.7	32.0	29.7
57.5°	25.1	25.1	25.1	25.1	22.9
60°	18.3	20.6	18.3	18.3	18.3
62.5°	16.0	16.0	13.7	16.0	13.7
65°	11.4	11.4	11.4	11.4	11.4
67.5°	9.1	9.1	9.1	9.1	9.1
70°	6.9	6.9	6.9	6.9	6.9
72.5°	4.6	6.9	4.6	6.9	6.9
75°	4.6	4.6	4.6	4.6	4.6



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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

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

Scaled Data Report



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Scaled Data Report





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

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77.5°	4.6	4.6	4.6	4.6	2.3
80°	2.3	2.3	2.3	2.3	2.3

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(END OF REPORT)