

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: P838694

Luminaire Tested: HCSQ655D010-HM64560827-61SQC

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838694
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-HM64560827-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

Summary

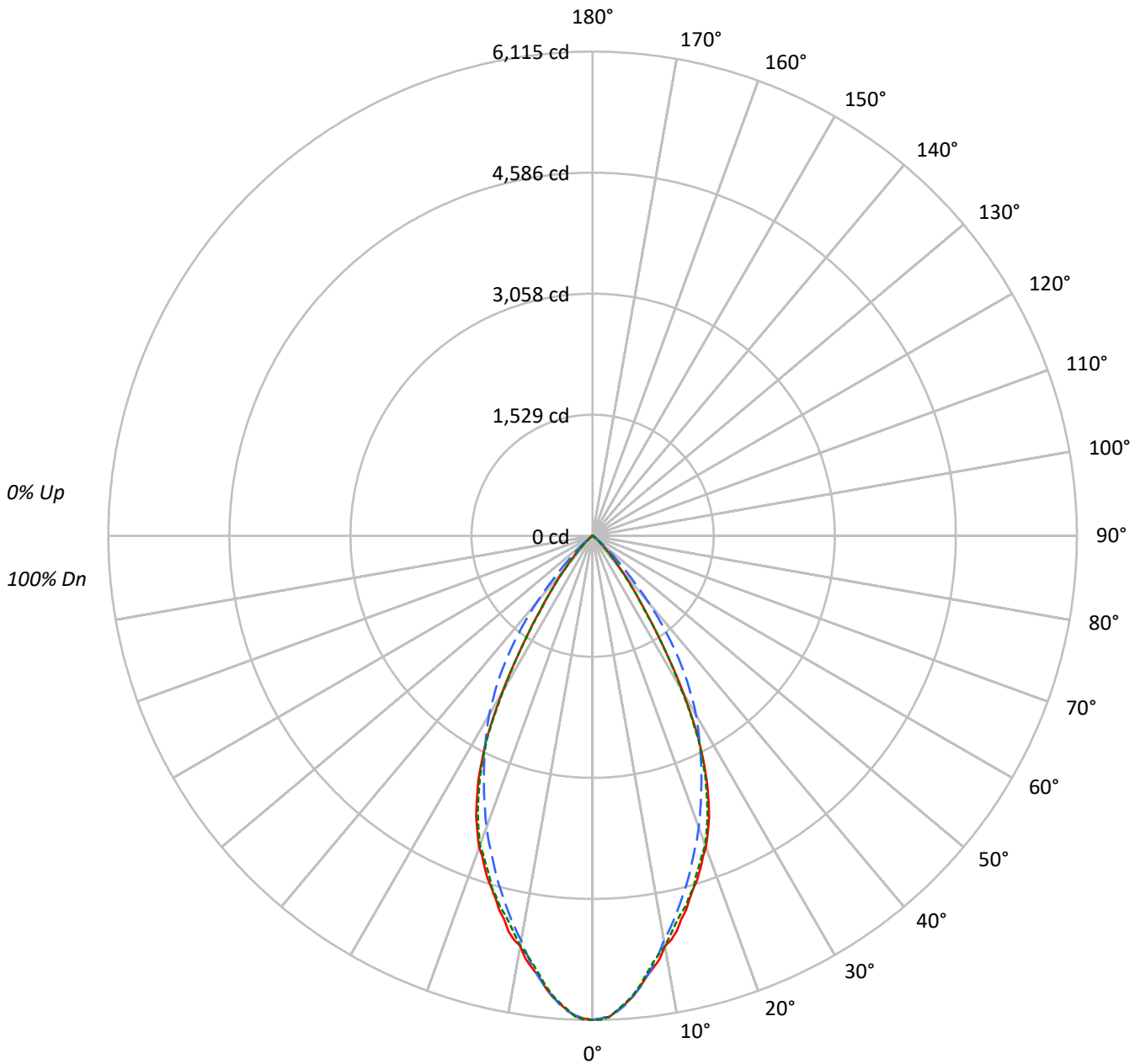
Lumens per Lamp: N/A
Luminaire Lumens: 4580.4 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 54
Input Voltage (V): NR
Input Current (Ain): 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°	263294	263294	263294
5°	252561	252120	251766
10°	230032	226906	229853
15°	211403	203665	210129
20°	191848	179495	190538
25°	162140	154283	159907
30°	113527	129874	111598
35°	60976	99625	59799
40°	30193	61646	29963
45°	13183	25994	12933
50°	4240	9438	4240
55°	2147	3063	1997
60°	1404	1404	1404
65°	1039	1039	1039
70°	768	768	768
75°	682	682	682
80°	496	496	496
85°	988	988	988

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 25994 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	537.0	11.7
10°-20°	1296.7	28.3
20°-30°	1497.9	32.7
30°-40°	935.4	20.4
40°-50°	259.9	5.7
50°-60°	36.4	0.8
60°-70°	10.7	0.2
70°-80°	4.6	0.1
80°-90°	1.9	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°	3331.6	72.7
0°-40°	4267.0	93.2
0°-60°	4563.2	99.6
0°-90°	4580.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4580.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6115	6115	6115	6115	6115	
5°	5844	5827	5833	5825	5825	539
15°	4743	4653	4569	4640	4714	1328
25°	3413	3313	3248	3311	3366	1524
35°	1160	1432	1895	1415	1138	771
45°	216	276	427	274	212	188
55°	29	29	41	29	27	28
65°	10	10	10	10	10	11
75°	4	4	4	4	4	4
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°	<i>6115.2</i>	<i>6115.2</i>	<i>6115.2</i>	<i>6115.2</i>	<i>6115.2</i>
1°	<i>6096.8</i>	6096.8	6096.8	6113.2	6113.2
2°	<i>6078.5</i>	6074.4	6064.2	6076.4	6082.5
3°	<i>6002.9</i>	6011.1	6015.1	6009.0	5994.7
4°	<i>5925.3</i>	5917.1	5939.6	5925.3	5913.0
5°	<i>5843.6</i>	5827.2	5833.4	5825.2	5825.2
6°	<i>5729.2</i>	5749.6	5733.3	5719.0	5710.8
7°	<i>5604.6</i>	5620.9	5610.7	5590.3	5576.0
8°	<i>5506.6</i>	5496.3	5480.0	5475.9	5451.4
9°	<i>5412.6</i>	5375.8	5339.1	5345.2	5351.3
10°	<i>5261.5</i>	5265.5	5190.0	5247.2	5257.4
11°	<i>5198.1</i>	5175.7	5075.6	5122.6	5138.9
12°	<i>5106.2</i>	5034.7	4949.0	4987.8	5018.4
13°	<i>4973.5</i>	4899.9	4822.3	4881.6	4912.2
14°	<i>4873.4</i>	4789.6	4691.6	4767.2	4830.5
15°	<i>4742.7</i>	4652.8	4569.1	4640.5	4714.1
16°	<i>4628.3</i>	4524.1	4440.4	4509.8	4620.1
17°	<i>4528.2</i>	4399.5	4297.4	4370.9	4477.1
18°	<i>4411.8</i>	4262.7	4168.7	4246.3	4366.8
19°	<i>4283.1</i>	4132.0	4048.2	4111.5	4250.4
20°	<i>4187.1</i>	4017.6	3917.5	3978.8	4158.5
22.5°	<i>3844.0</i>	3666.3	3574.4	3647.9	3790.9
25°	<i>3413.0</i>	3312.9	3247.6	3310.9	3366.0
27.5°	<i>2902.4</i>	2902.4	2924.8	2898.3	2882.0
30°	<i>2283.5</i>	2448.9	2612.3	2440.8	2244.7
32.5°	<i>1666.7</i>	1932.2	2261.0	1966.9	1664.6
35°	<i>1160.1</i>	1431.8	1895.4	1415.4	1137.7
37.5°	<i>806.8</i>	986.5	1495.1	996.7	796.6
40°	<i>537.2</i>	661.8	1096.8	674.0	533.1
42.5°	<i>351.3</i>	437.1	708.7	439.1	343.1
45°	<i>216.5</i>	275.7	426.9	273.7	212.4
47.5°	<i>126.6</i>	163.4	249.2	165.4	124.6
50°	<i>63.3</i>	96.0	140.9	94.0	63.3
52.5°	<i>36.8</i>	51.1	77.6	49.0	36.8
55°	<i>28.6</i>	28.6	40.8	28.6	26.6
57.5°	<i>22.5</i>	22.5	22.5	22.5	20.4
60°	<i>16.3</i>	18.4	16.3	16.3	16.3
62.5°	<i>14.3</i>	14.3	12.3	14.3	12.3
65°	<i>10.2</i>	10.2	10.2	10.2	10.2
67.5°	<i>8.2</i>	8.2	8.2	8.2	8.2
70°	<i>6.1</i>	6.1	6.1	6.1	6.1
72.5°	<i>4.1</i>	6.1	4.1	6.1	6.1
75°	<i>4.1</i>	4.1	4.1	4.1	4.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	2.0	2.0	2.0	2.0	2.0
85°	2.0	2.0	2.0	2.0	2.0
87.5°	2.0	2.0	2.0	2.0	2.0
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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— 0°-180° - - 45°-225° - - - - 90°-270°

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77.5°	4.1	4.1	4.1	4.1	2.0
80°	2.0	2.0	2.0	2.0	2.0

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