

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: P838719

Luminaire Tested: HCSQ655D010-HM64560930-61SQC

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838719
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-HM64560930-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

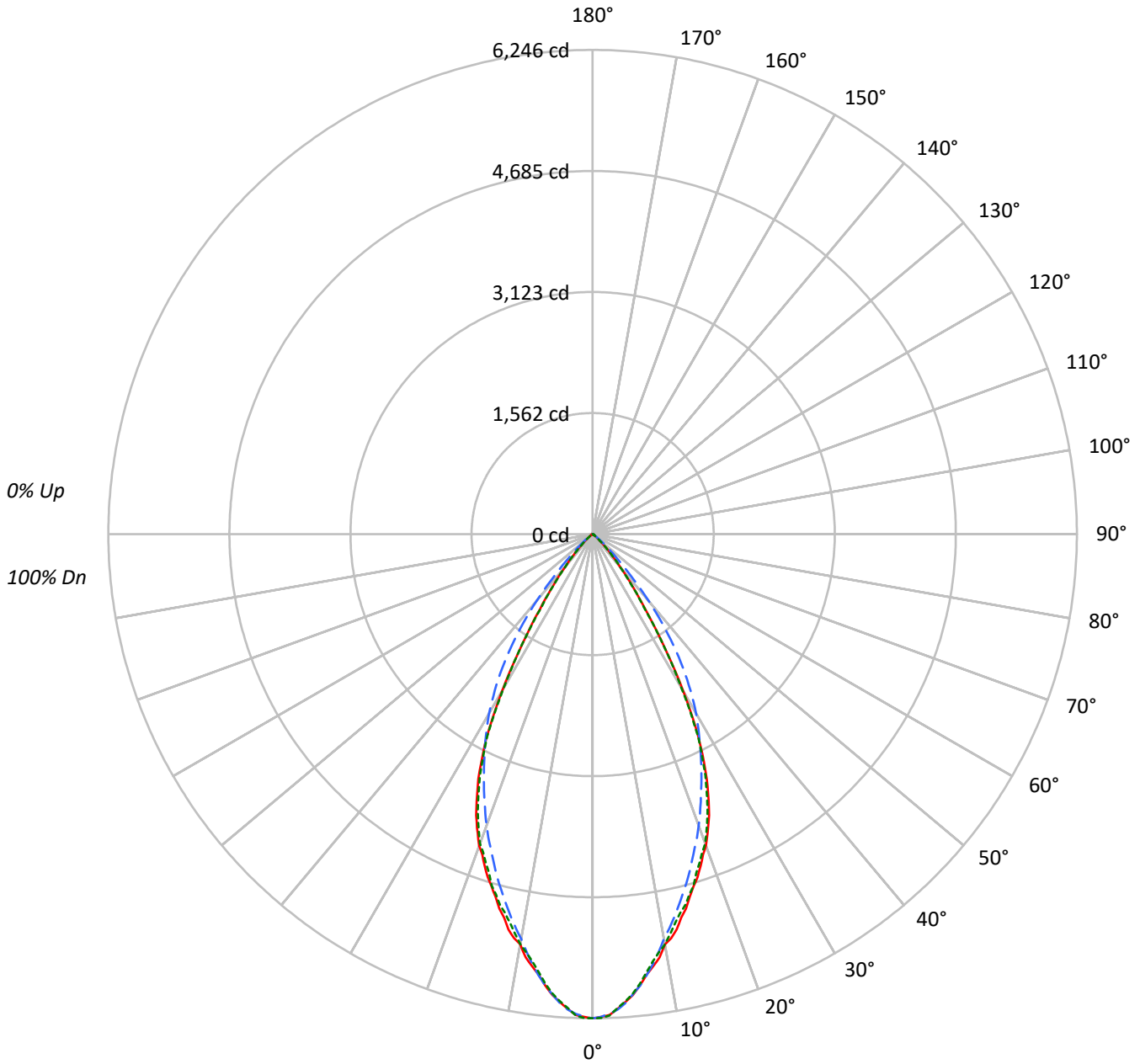
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4678.8 lumens
Efficiency: N/A
Efficacy: 86.6 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					70					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°	268947	268947	268947
5°	257981	257531	257168
10°	234968	231776	234784
15°	215941	208034	214635
20°	195967	183349	194629
25°	165622	157594	163342
30°	115963	132663	113995
35°	62285	101764	61081
40°	30840	62972	30604
45°	13469	26548	13213
50°	4334	9646	4334
55°	2192	3130	2034
60°	1438	1438	1438
65°	1060	1060	1060
70°	793	793	793
75°	699	699	699
80°	521	521	521
85°	1037	1037	1037

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 26548 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	548.5	11.7
10°-20°	1324.5	28.3
20°-30°	1530.1	32.7
30°-40°	955.5	20.4
40°-50°	265.5	5.7
50°-60°	37.1	0.8
60°-70°	10.9	0.2
70°-80°	4.7	0.1
80°-90°	2.0	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°	3403.1	72.7
0°-40°	4358.6	93.2
0°-60°	4661.2	99.6
0°-90°	4678.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4678.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6246	6246	6246	6246	6246	
5°	5969	5952	5959	5950	5950	550
15°	4844	4753	4667	4740	4815	1357
25°	3486	3384	3317	3382	3438	1557
35°	1185	1462	1936	1446	1162	787
45°	221	282	436	280	217	192
55°	29	29	42	29	27	29
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°	6246.5	6246.5	6246.5	6246.5	6246.5
1°	6227.7	6227.7	6227.7	6244.4	6244.4
2°	6208.9	6204.7	6194.3	6206.8	6213.1
3°	6131.7	6140.1	6144.2	6138.0	6123.4
4°	6052.4	6044.1	6067.0	6052.4	6039.9
5°	5969.0	5952.3	5958.6	5950.2	5950.2
6°	5852.2	5873.0	5856.3	5841.7	5833.4
7°	5724.9	5741.6	5731.1	5710.3	5695.7
8°	5624.7	5614.3	5597.6	5593.4	5568.4
9°	5528.8	5491.2	5453.7	5459.9	5466.2
10°	5374.4	5378.6	5301.4	5359.8	5370.2
11°	5309.7	5286.8	5184.5	5232.5	5249.2
12°	5215.8	5142.8	5055.2	5094.8	5126.1
13°	5080.2	5005.1	4925.8	4986.3	5017.6
14°	4978.0	4892.4	4792.3	4869.5	4934.2
15°	4844.5	4752.7	4667.1	4740.1	4815.2
16°	4727.6	4621.2	4535.7	4606.6	4719.3
17°	4625.4	4494.0	4389.6	4464.7	4573.2
18°	4506.5	4354.2	4258.2	4337.5	4460.6
19°	4375.0	4220.6	4135.1	4199.8	4341.7
20°	4277.0	4103.8	4001.6	4064.2	4247.8
22.5°	3926.5	3745.0	3651.1	3726.2	3872.2
25°	3486.3	3384.0	3317.3	3381.9	3438.3
27.5°	2964.7	2964.7	2987.6	2960.5	2943.8
30°	2332.5	2501.5	2668.4	2493.2	2292.9
32.5°	1702.4	1973.7	2309.6	2009.1	1700.4
35°	1185.0	1462.5	1936.1	1445.8	1162.1
37.5°	824.1	1007.7	1527.2	1018.1	813.7
40°	548.7	676.0	1120.4	688.5	544.5
42.5°	358.8	446.5	724.0	448.6	350.5
45°	221.2	281.7	436.0	279.6	217.0
47.5°	129.4	166.9	254.5	169.0	127.3
50°	64.7	98.1	144.0	96.0	64.7
52.5°	37.6	52.2	79.3	50.1	37.6
55°	29.2	29.2	41.7	29.2	27.1
57.5°	22.9	22.9	22.9	22.9	20.9
60°	16.7	18.8	16.7	16.7	16.7
62.5°	14.6	14.6	12.5	14.6	12.5
65°	10.4	10.4	10.4	10.4	10.4
67.5°	8.3	8.3	8.3	8.3	8.3
70°	6.3	6.3	6.3	6.3	6.3
72.5°	4.2	6.3	4.2	6.3	6.3
75°	4.2	4.2	4.2	4.2	4.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	2.1	2.1	2.1	2.1	2.1
85°	2.1	2.1	2.1	2.1	2.1
87.5°	2.1	2.1	2.1	2.1	2.1
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°	4.2	4.2	4.2	4.2	2.1
80°	2.1	2.1	2.1	2.1	2.1

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(END OF REPORT)