

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: P838733

Luminaire Tested: HCSQ655D010-HM64560940-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838733
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ655D010-HM64560940-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

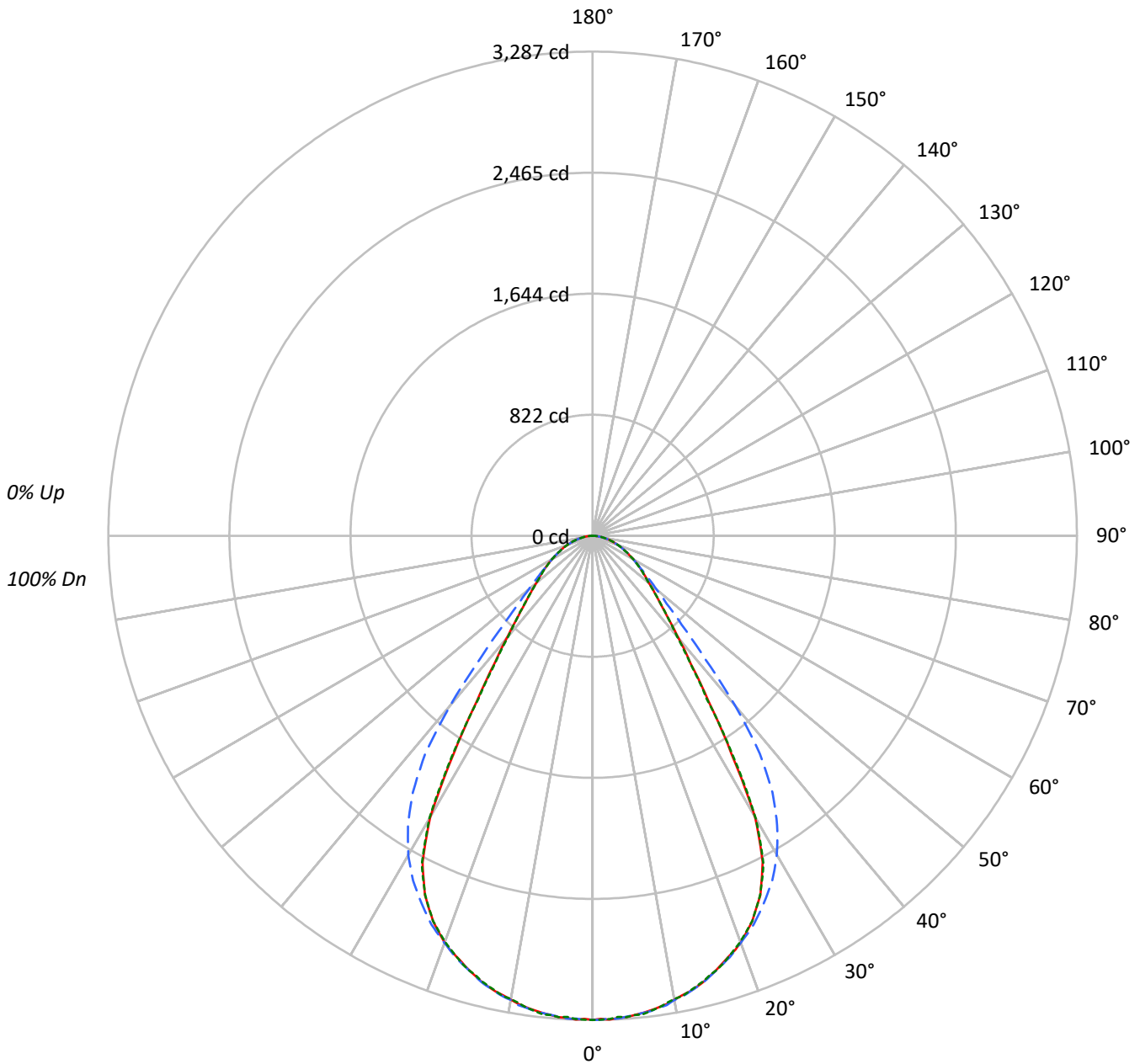
Lumens per Lamp: N/A
Luminaire Lumens: 4848.9 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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					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	0
RCR																						
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106			102	102	102	100
1	111	108	105	102	109	106	103	100		101	99	97		98	96	94			94	93	91	89
2	104	98	92	88	102	96	91	87		92	88	85		89	86	83			86	84	81	79
3	97	89	82	77	95	87	81	77		84	79	75		82	78	74			79	76	73	71
4	91	81	74	69	89	80	73	68		77	72	67		75	70	67			73	69	66	64
5	85	74	67	62	83	73	66	61		71	65	61		70	64	60			68	63	60	58
6	80	69	61	56	78	68	61	56		66	60	55		64	59	55			63	58	54	53
7	75	63	56	51	73	63	56	51		61	55	51		60	54	50			59	54	50	48
8	70	59	52	47	69	58	51	47		57	51	46		56	50	46			55	50	46	44
9	66	55	48	43	65	54	48	43		53	47	43		52	47	43			51	46	43	41
10	63	51	45	40	62	51	44	40		50	44	40		49	44	40			48	43	40	38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	141541	141541	141541
5°	141187	141088	141187
10°	139807	139908	139606
15°	137726	137829	137521
20°	134625	134730	134309
25°	127907	130634	127798
30°	109530	124376	110211
35°	71967	111808	70879
40°	50871	84313	49966
45°	39444	51896	39725
50°	33545	37852	33237
55°	30176	31039	30176
60°	27297	27297	27297
65°	25042	24807	24807
70°	22848	22848	23138
75°	21393	20645	21011
80°	18794	18794	18794
85°	15907	15907	15907

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 51896 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	309.9	6.4
10°-20°	870.3	17.9
20°-30°	1240.2	25.6
30°-40°	1057.5	21.8
40°-50°	585.1	12.1
50°-60°	368.5	7.6
60°-70°	244.7	5.0
70°-80°	134.4	2.8
80°-90°	38.3	0.8
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°	2420.5	49.9
0°-40°	3478.0	71.7
0°-60°	4431.6	91.4
0°-90°	4848.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4848.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3287	3287	3287	3287	3287	
5°	3267	3271	3264	3260	3267	310
15°	3090	3090	3092	3090	3085	870
25°	2692	2724	2750	2722	2690	1216
35°	1369	1615	2127	1617	1348	890
45°	648	710	852	705	652	514
55°	402	409	414	407	402	361
65°	246	248	244	246	244	245
75°	129	126	124	126	126	135
85°	32	32	32	34	32	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3287.4	3287.4	3287.4	3287.4	3287.4
1°	3280.5	3285.1	3285.1	3282.8	3285.1
2°	3287.4	3280.5	3280.5	3280.5	3282.8
3°	3278.2	3282.8	3282.8	3275.9	3271.3
4°	3275.9	3273.6	3273.6	3280.5	3275.9
5°	3266.7	3271.3	3264.4	3259.8	3266.7
6°	3257.5	3259.8	3257.5	3259.8	3266.7
7°	3246.0	3252.9	3250.6	3248.3	3248.3
8°	3232.2	3241.4	3236.8	3236.8	3234.5
9°	3218.4	3220.7	3225.3	3225.3	3211.5
10°	3197.8	3204.7	3200.1	3202.4	3193.2
11°	3179.4	3188.6	3186.3	3181.7	3184.0
12°	3163.3	3167.9	3165.6	3158.7	3161.0
13°	3142.6	3147.2	3144.9	3144.9	3138.0
14°	3119.7	3115.1	3122.0	3117.4	3115.1
15°	3089.8	3089.8	3092.1	3089.8	3085.2
16°	3062.2	3064.5	3064.5	3062.2	3064.5
17°	3030.1	3039.2	3037.0	3032.4	3034.7
18°	3000.2	3007.1	3009.4	3007.1	3000.2
19°	2972.6	2977.2	2974.9	2965.7	2965.7
20°	2938.2	2940.5	2940.5	2935.9	2931.3
22.5°	2830.2	2846.3	2857.8	2848.6	2830.2
25°	2692.4	2724.5	2749.8	2722.2	2690.1
27.5°	2499.4	2563.7	2639.5	2570.6	2510.9
30°	2203.1	2350.1	2501.7	2363.9	2216.8
32.5°	1752.8	2042.2	2331.7	2069.8	1780.4
35°	1369.2	1615.0	2127.2	1617.3	1348.5
37.5°	1093.5	1268.1	1865.4	1256.6	1082.0
40°	905.1	1022.3	1500.1	1017.7	889.0
42.5°	755.8	845.4	1123.4	836.2	755.8
45°	647.8	709.8	852.3	705.3	652.4
47.5°	567.4	606.5	682.3	604.2	567.4
50°	500.8	523.8	565.1	521.5	496.2
52.5°	448.0	461.7	477.8	457.2	443.4
55°	402.0	408.9	413.5	406.6	402.0
57.5°	358.4	363.0	360.7	358.4	356.1
60°	317.0	319.3	317.0	319.3	317.0
62.5°	280.3	282.6	278.0	280.3	278.0
65°	245.8	248.1	243.5	245.8	243.5
67.5°	213.6	213.6	213.6	213.6	211.3
70°	181.5	183.8	181.5	183.8	183.8
72.5°	153.9	153.9	151.6	153.9	153.9
75°	128.6	126.3	124.1	126.3	126.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	55.1	55.1	52.8	55.1	55.1
85°	32.2	32.2	32.2	34.5	32.2
87.5°	16.1	13.8	13.8	16.1	16.1
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°	101.1	101.1	98.8	101.1	101.1
80°	75.8	78.1	75.8	78.1	75.8

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Scaled Data Report



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