

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: P838545

Luminaire Tested: HCSQ635D010-HM63040835-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838545
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ635D010-HM63040835-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

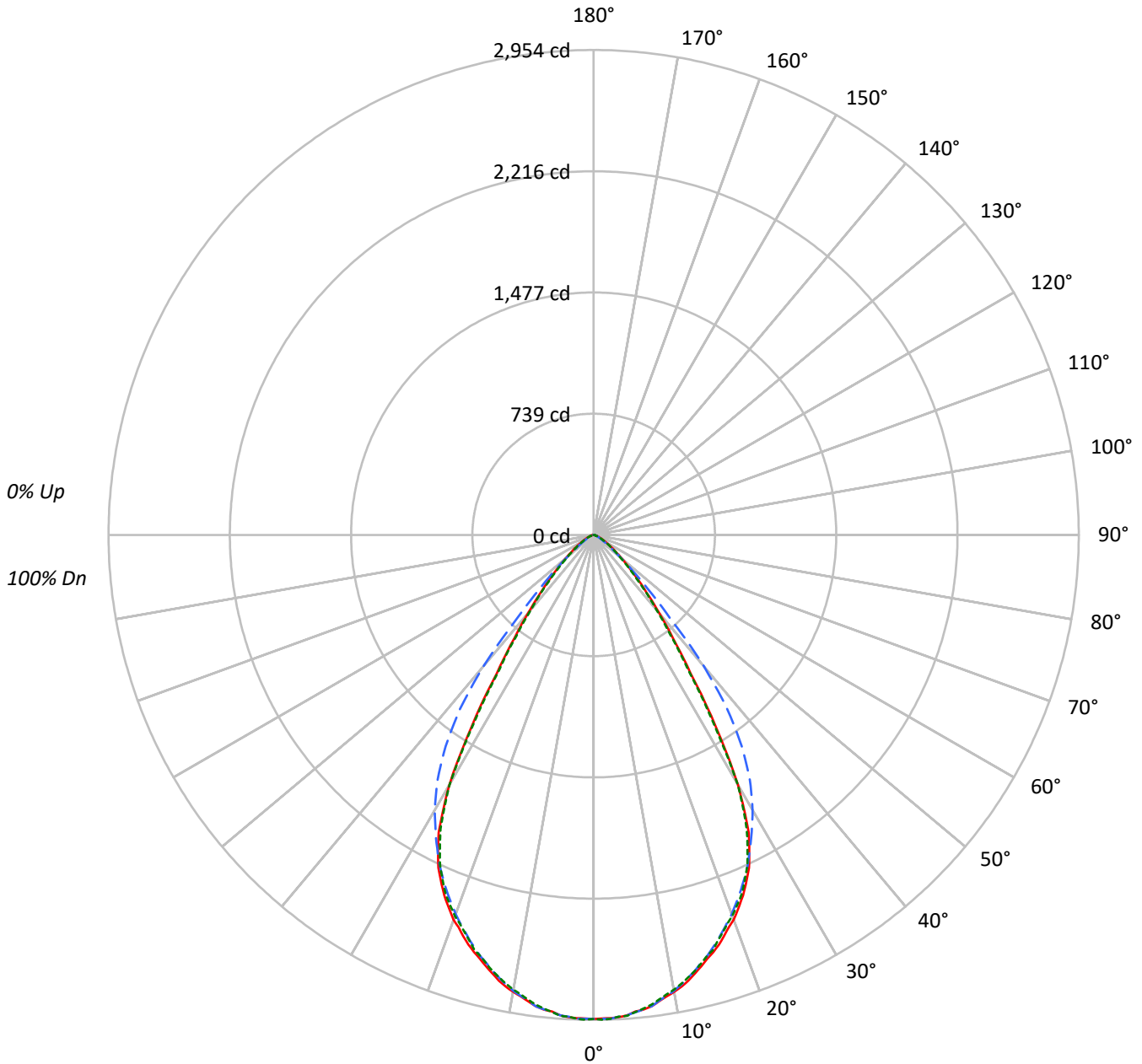
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3316.3 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 34
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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92								
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85								
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78								
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71								
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66								
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61								
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56								
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52								
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48								
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	126958	126958	126958
5°	125956	126168	126099
10°	123552	123268	122980
15°	119188	118533	118461
20°	114272	112623	113150
25°	106363	105432	105199
30°	87406	96186	87163
35°	53980	82605	52693
40°	34656	58555	33459
45°	22602	28381	21512
50°	15011	14133	14019
55°	10186	7364	9451
60°	6898	4504	6338
65°	4829	3331	4330
70°	3084	2467	2883
75°	2179	1896	1896
80°	1612	1215	1215
85°	790	1630	790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 28381 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.4	8.3
10°-20°	747.4	22.5
20°-30°	1008.9	30.4
30°-40°	787.4	23.7
40°-50°	329.9	9.9
50°-60°	111.8	3.4
60°-70°	39.9	1.2
70°-80°	13.0	0.4
80°-90°	2.6	0.1
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°	2031.7	61.3
0°-40°	2819.1	85.0
0°-60°	3260.8	98.3
0°-90°	3316.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3316.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2949	2949	2949	2949	2949	
5°	2914	2918	2919	2914	2918	276
15°	2674	2667	2659	2656	2658	752
25°	2239	2229	2219	2219	2214	1007
35°	1027	1205	1572	1204	1002	675
45°	371	397	466	379	353	298
55°	136	124	98	118	126	125
65°	47	39	33	38	42	49
75°	13	11	11	11	11	14
85°	2	2	3	2	2	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2948.7	2948.7	2948.7	2948.7	2948.7
1°	2945.4	2950.3	2947.0	2948.7	2953.6
2°	2945.4	2945.4	2948.7	2947.0	2948.7
3°	2942.1	2942.1	2938.9	2938.9	2938.9
4°	2932.3	2932.3	2932.3	2929.1	2935.6
5°	2914.3	2917.6	2919.2	2914.3	2917.6
6°	2907.8	2909.4	2906.2	2904.5	2901.2
7°	2893.1	2888.2	2893.1	2881.6	2883.3
8°	2868.5	2868.5	2865.3	2862.0	2858.7
9°	2845.6	2845.6	2842.4	2837.5	2834.2
10°	2826.0	2821.1	2819.5	2814.6	2812.9
11°	2803.1	2793.3	2791.7	2786.8	2786.8
12°	2775.3	2770.4	2759.0	2757.3	2757.3
13°	2741.0	2736.1	2727.9	2721.4	2727.9
14°	2708.3	2705.0	2690.3	2695.2	2693.6
15°	2673.9	2667.4	2659.2	2655.9	2657.6
16°	2642.9	2631.4	2620.0	2621.6	2631.4
17°	2610.1	2593.8	2582.3	2580.7	2585.6
18°	2569.3	2556.2	2538.2	2544.7	2544.7
19°	2528.4	2510.4	2498.9	2497.3	2503.8
20°	2494.0	2466.2	2458.0	2456.4	2469.5
22.5°	2376.3	2348.5	2341.9	2348.5	2361.6
25°	2238.9	2229.1	2219.3	2219.3	2214.4
27.5°	2044.3	2067.2	2078.6	2055.7	2018.1
30°	1758.1	1854.6	1934.7	1843.1	1753.2
32.5°	1385.2	1584.7	1769.5	1579.8	1352.5
35°	1027.0	1205.3	1571.6	1203.7	1002.5
37.5°	791.5	906.0	1336.1	891.3	768.7
40°	616.6	683.6	1041.8	675.4	595.3
42.5°	479.2	521.7	693.4	511.9	462.8
45°	371.2	397.4	466.1	379.4	353.3
47.5°	289.5	300.9	318.9	287.8	273.1
50°	224.1	224.1	211.0	215.9	209.3
52.5°	173.4	166.8	142.3	157.0	160.3
55°	135.7	124.3	98.1	117.8	125.9
57.5°	103.0	91.6	70.3	86.7	94.9
60°	80.1	68.7	52.3	65.4	73.6
62.5°	62.1	52.3	40.9	49.1	55.6
65°	47.4	39.3	32.7	37.6	42.5
67.5°	36.0	29.4	24.5	27.8	32.7
70°	24.5	22.9	19.6	21.3	22.9
72.5°	18.0	16.4	14.7	14.7	16.4
75°	13.1	11.4	11.4	11.4	11.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	3.3	3.3	3.3	3.3	3.3
85°	1.6	1.6	3.3	1.6	1.6
87.5°	1.6	1.6	1.6	1.6	1.6
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°	8.2	8.2	8.2	8.2	8.2
80°	6.5	6.5	4.9	4.9	4.9

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(END OF REPORT)