

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: P838565

Luminaire Tested: HCSQ635D010-HM63040935-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838565
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-HM63040935-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

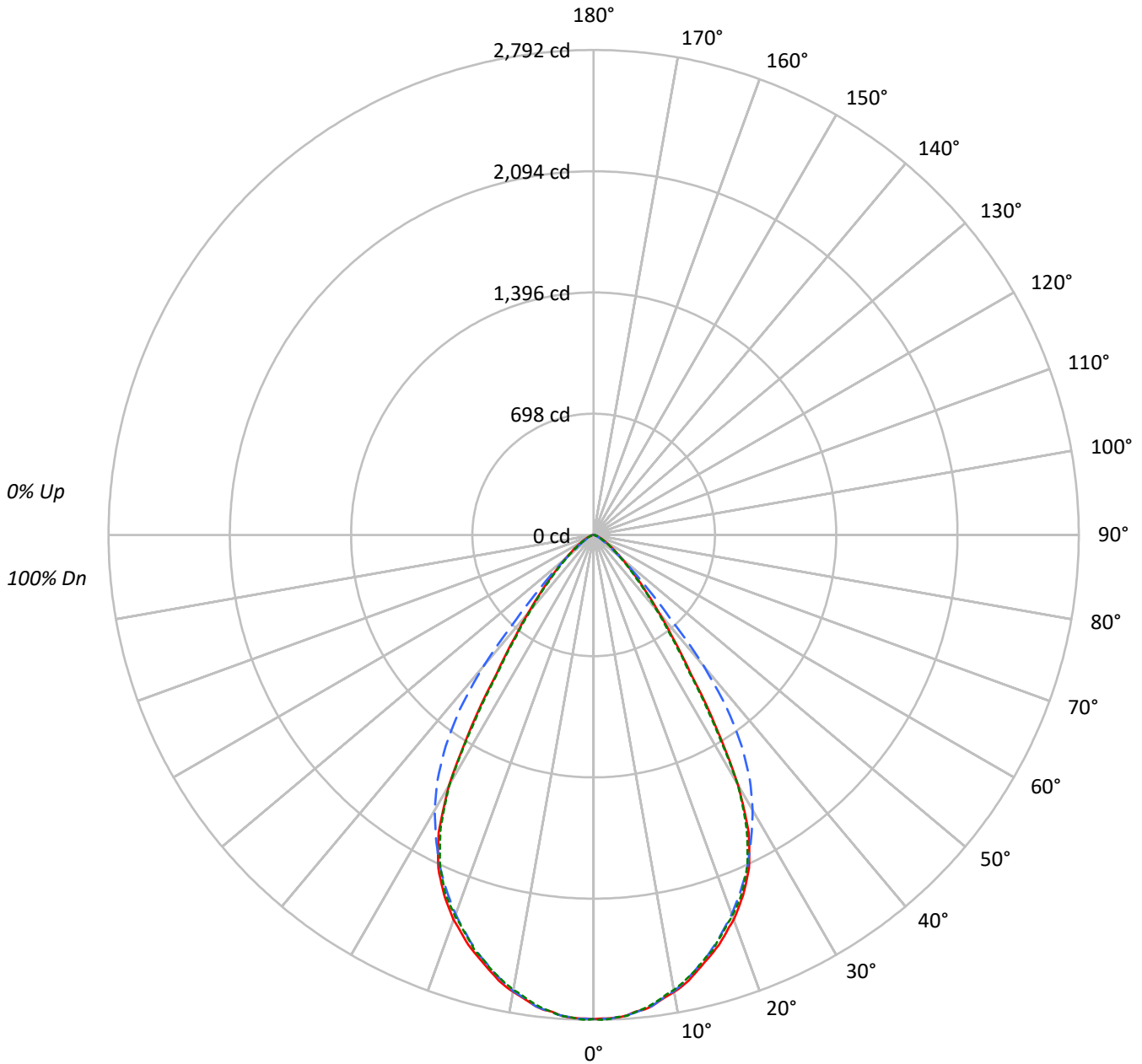
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3134.9 lumens
Efficiency: N/A
Efficacy: 92.2 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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92					92			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85					85			
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78					78			
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71					71			
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66					66			
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61					61			
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56					56			
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52					52			
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48					48			
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45					45			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	120013	120013	120013
5°	119071	119270	119201
10°	116798	116527	116255
15°	112671	112051	111980
20°	108023	106465	106960
25°	100548	99664	99446
30°	82624	90926	82395
35°	51032	78090	49812
40°	32756	55351	31627
45°	21366	26828	20331
50°	14187	13356	13256
55°	9631	6966	8933
60°	6527	4263	5993
65°	4564	3148	4096
70°	2921	2341	2719
75°	2063	1797	1797
80°	1537	1141	1141
85°	741	1531	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 26828 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.3	8.3
10°-20°	706.5	22.5
20°-30°	953.8	30.4
30°-40°	744.4	23.7
40°-50°	311.8	9.9
50°-60°	105.7	3.4
60°-70°	37.7	1.2
70°-80°	12.2	0.4
80°-90°	2.5	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°	1920.6	61.3
0°-40°	2665.0	85.0
0°-60°	3082.5	98.3
0°-90°	3134.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3134.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2787	2787	2787	2787	2787	
5°	2755	2758	2760	2755	2758	261
15°	2528	2522	2514	2511	2512	711
25°	2116	2107	2098	2098	2093	952
35°	971	1139	1486	1138	948	638
45°	351	376	441	359	334	282
55°	128	118	93	111	119	118
65°	45	37	31	36	40	46
75°	12	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°	2787.4	2787.4	2787.4	2787.4	2787.4
1°	2784.3	2789.0	2785.9	2787.4	2792.1
2°	2784.3	2784.3	2787.4	2785.9	2787.4
3°	2781.2	2781.2	2778.1	2778.1	2778.1
4°	2772.0	2772.0	2772.0	2768.9	2775.1
5°	2755.0	2758.0	2759.6	2755.0	2758.0
6°	2748.8	2750.3	2747.2	2745.7	2742.6
7°	2734.9	2730.2	2734.9	2724.0	2725.6
8°	2711.7	2711.7	2708.6	2705.5	2702.4
9°	2690.0	2690.0	2686.9	2682.3	2679.2
10°	2671.5	2666.8	2665.3	2660.6	2659.1
11°	2649.8	2640.6	2639.0	2634.4	2634.4
12°	2623.5	2618.9	2608.1	2606.5	2606.5
13°	2591.1	2586.4	2578.7	2572.5	2578.7
14°	2560.2	2557.1	2543.2	2547.8	2546.2
15°	2527.7	2521.5	2513.8	2510.7	2512.2
16°	2498.3	2487.5	2476.7	2478.2	2487.5
17°	2467.4	2451.9	2441.1	2439.6	2444.2
18°	2428.8	2416.4	2399.4	2405.6	2405.6
19°	2390.1	2373.1	2362.3	2360.7	2366.9
20°	2357.6	2331.4	2323.6	2322.1	2334.4
22.5°	2246.3	2220.0	2213.9	2220.0	2232.4
25°	2116.5	2107.2	2097.9	2097.9	2093.3
27.5°	1932.5	1954.1	1965.0	1943.3	1907.8
30°	1661.9	1753.2	1828.9	1742.3	1657.3
32.5°	1309.5	1498.1	1672.8	1493.4	1278.5
35°	970.9	1139.4	1485.7	1137.8	947.7
37.5°	748.3	856.5	1263.1	842.6	726.6
40°	582.8	646.2	984.8	638.5	562.7
42.5°	453.0	493.2	655.5	483.9	437.5
45°	350.9	375.7	440.6	358.7	333.9
47.5°	273.6	284.5	301.5	272.1	258.2
50°	211.8	211.8	199.4	204.1	197.9
52.5°	163.9	157.7	134.5	148.4	151.5
55°	128.3	117.5	92.8	111.3	119.0
57.5°	97.4	86.6	66.5	81.9	89.7
60°	75.8	64.9	49.5	61.8	69.6
62.5°	58.7	49.5	38.6	46.4	52.6
65°	44.8	37.1	30.9	35.6	40.2
67.5°	34.0	27.8	23.2	26.3	30.9
70°	23.2	21.6	18.6	20.1	21.6
72.5°	17.0	15.5	13.9	13.9	15.5
75°	12.4	10.8	10.8	10.8	10.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	3.1	3.1	3.1	3.1	3.1
85°	1.5	1.5	3.1	1.5	1.5
87.5°	1.5	1.5	1.5	1.5	1.5
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°	7.7	7.7	7.7	7.7	7.7
80°	6.2	6.2	4.6	4.6	4.6

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(END OF REPORT)