

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: P838429

Luminaire Tested: HCSQ620D010-HM60525840-61SQC

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838429
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: HCSQ620D010-HM60525840-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

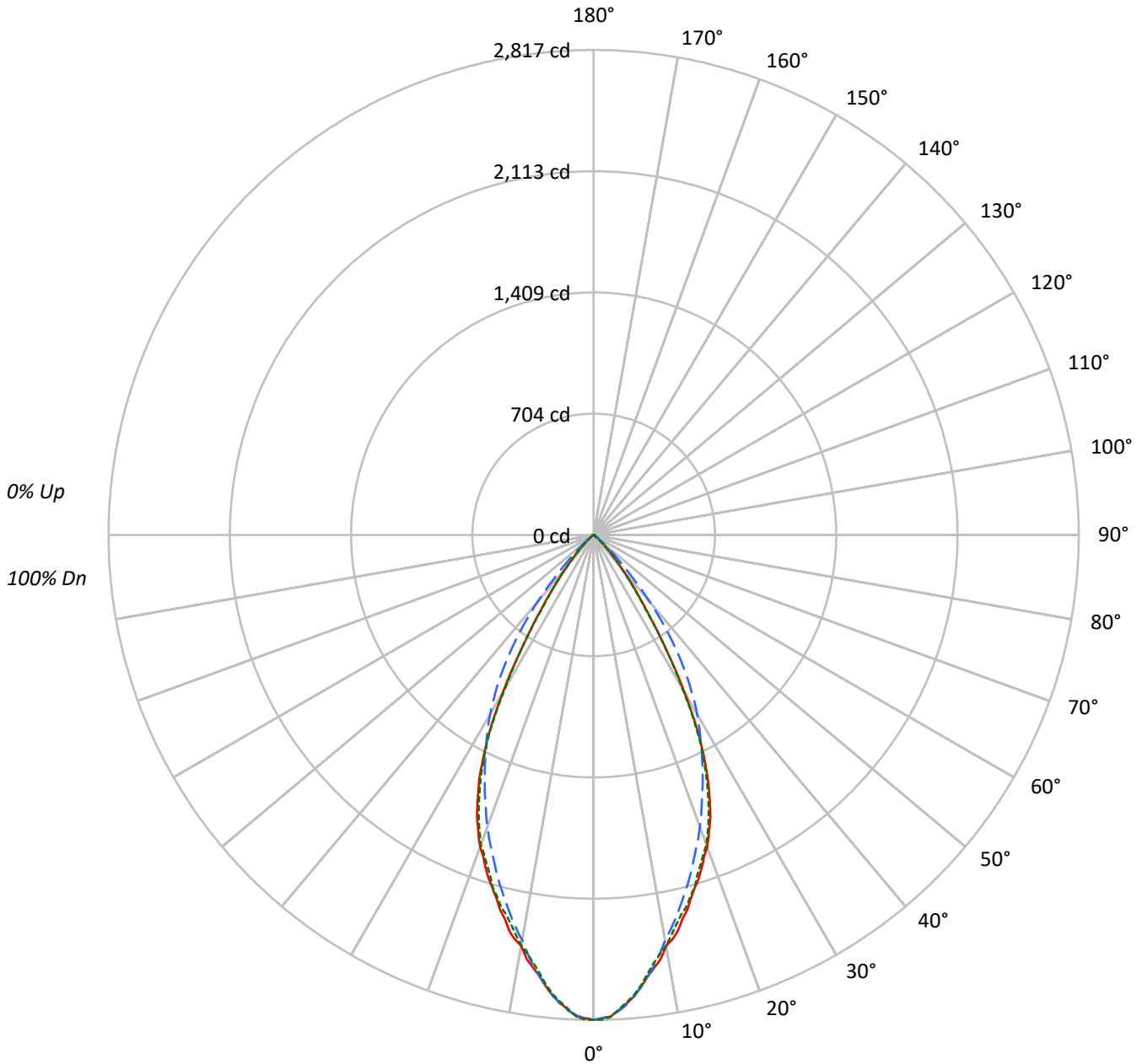
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2109.9 lumens
Efficiency: N/A
Efficacy: 105.5 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): 20
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					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	100	100	100	100		
	1	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94	94	94	94	94	94		
	2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87	87	87	87	87	87		
	3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81	81	81	81	81	81		
	4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76	76	76	76	76	76		
	5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71	71	71	71	71	71		
	6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66	66	66	66	66	66		
	7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62	62	62	62	62	62		
	8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59	59	59	59	59	59		
	9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55	55	55	55	55	55		
	10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52	52	52	52	52	52		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	121283	121283	121283
5°	116340	116137	115973
10°	105959	104521	105876
15°	97377	93816	96794
20°	88371	82680	87771
25°	74690	71065	73659
30°	52297	59824	51407
35°	28089	45891	27547
40°	13905	28395	13804
45°	6071	11971	5955
50°	1956	4347	1956
55°	991	1411	916
60°	646	646	646
65°	479	479	479
70°	352	352	352
75°	316	316	316
80°	223	223	223
85°	445	445	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 11971 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	247.4	11.7
10°-20°	597.3	28.3
20°-30°	690.0	32.7
30°-40°	430.9	20.4
40°-50°	119.7	5.7
50°-60°	16.7	0.8
60°-70°	4.9	0.2
70°-80°	2.1	0.1
80°-90°	0.9	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°	1534.6	72.7
0°-40°	1965.5	93.2
0°-60°	2102.0	99.6
0°-90°	2109.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2109.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2817	2817	2817	2817	2817	
5°	2692	2684	2687	2683	2683	248
15°	2185	2143	2105	2138	2172	612
25°	1572	1526	1496	1525	1550	702
35°	534	660	873	652	524	355
45°	100	127	197	126	98	86
55°	13	13	19	13	12	13
65°	5	5	5	5	5	5
75°	2	2	2	2	2	2
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2816.9	2816.9	2816.9	2816.9	2816.9
1°	2808.4	2808.4	2808.4	2816.0	2816.0
2°	2800.0	2798.1	2793.4	2799.0	2801.8
3°	2765.1	2768.9	2770.8	2768.0	2761.4
4°	2729.4	2725.6	2736.0	2729.4	2723.8
5°	2691.8	2684.2	2687.1	2683.3	2683.3
6°	2639.1	2648.5	2641.0	2634.4	2630.6
7°	2581.7	2589.2	2584.5	2575.1	2568.5
8°	2536.5	2531.8	2524.3	2522.4	2511.1
9°	2493.2	2476.3	2459.4	2462.2	2465.0
10°	2423.6	2425.5	2390.7	2417.0	2421.7
11°	2394.5	2384.1	2338.0	2359.6	2367.2
12°	2352.1	2319.2	2279.7	2297.5	2311.7
13°	2291.0	2257.1	2221.3	2248.6	2262.7
14°	2244.9	2206.3	2161.1	2195.9	2225.1
15°	2184.6	2143.2	2104.7	2137.6	2171.5
16°	2132.0	2084.0	2045.4	2077.4	2128.2
17°	2085.9	2026.6	1979.5	2013.4	2062.3
18°	2032.2	1963.5	1920.3	1956.0	2011.5
19°	1973.0	1903.3	1864.8	1893.9	1957.9
20°	1928.7	1850.6	1804.5	1832.8	1915.6
22.5°	1770.7	1688.8	1646.5	1680.4	1746.2
25°	1572.2	1526.1	1495.9	1525.1	1550.5
27.5°	1336.9	1336.9	1347.3	1335.1	1327.5
30°	1051.9	1128.1	1203.3	1124.3	1034.0
32.5°	767.7	890.0	1041.5	906.0	766.8
35°	534.4	659.5	873.1	652.0	524.1
37.5°	371.6	454.4	688.7	459.1	366.9
40°	247.4	304.8	505.2	310.5	245.6
42.5°	161.8	201.3	326.5	202.3	158.1
45°	99.7	127.0	196.6	126.1	97.8
47.5°	58.3	75.3	114.8	76.2	57.4
50°	29.2	44.2	64.9	43.3	29.2
52.5°	16.9	23.5	35.8	22.6	16.9
55°	13.2	13.2	18.8	13.2	12.2
57.5°	10.3	10.3	10.3	10.3	9.4
60°	7.5	8.5	7.5	7.5	7.5
62.5°	6.6	6.6	5.6	6.6	5.6
65°	4.7	4.7	4.7	4.7	4.7
67.5°	3.8	3.8	3.8	3.8	3.8
70°	2.8	2.8	2.8	2.8	2.8
72.5°	1.9	2.8	1.9	2.8	2.8
75°	1.9	1.9	1.9	1.9	1.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.9
87.5°	0.9	0.9	0.9	0.9	0.9
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°	1.9	1.9	1.9	1.9	0.9
80°	0.9	0.9	0.9	0.9	0.9

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