

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: P838763

Luminaire Tested: HCSQ660D010-HM64560930-61SQMW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838763
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: HCSQ660D010-HM64560930-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

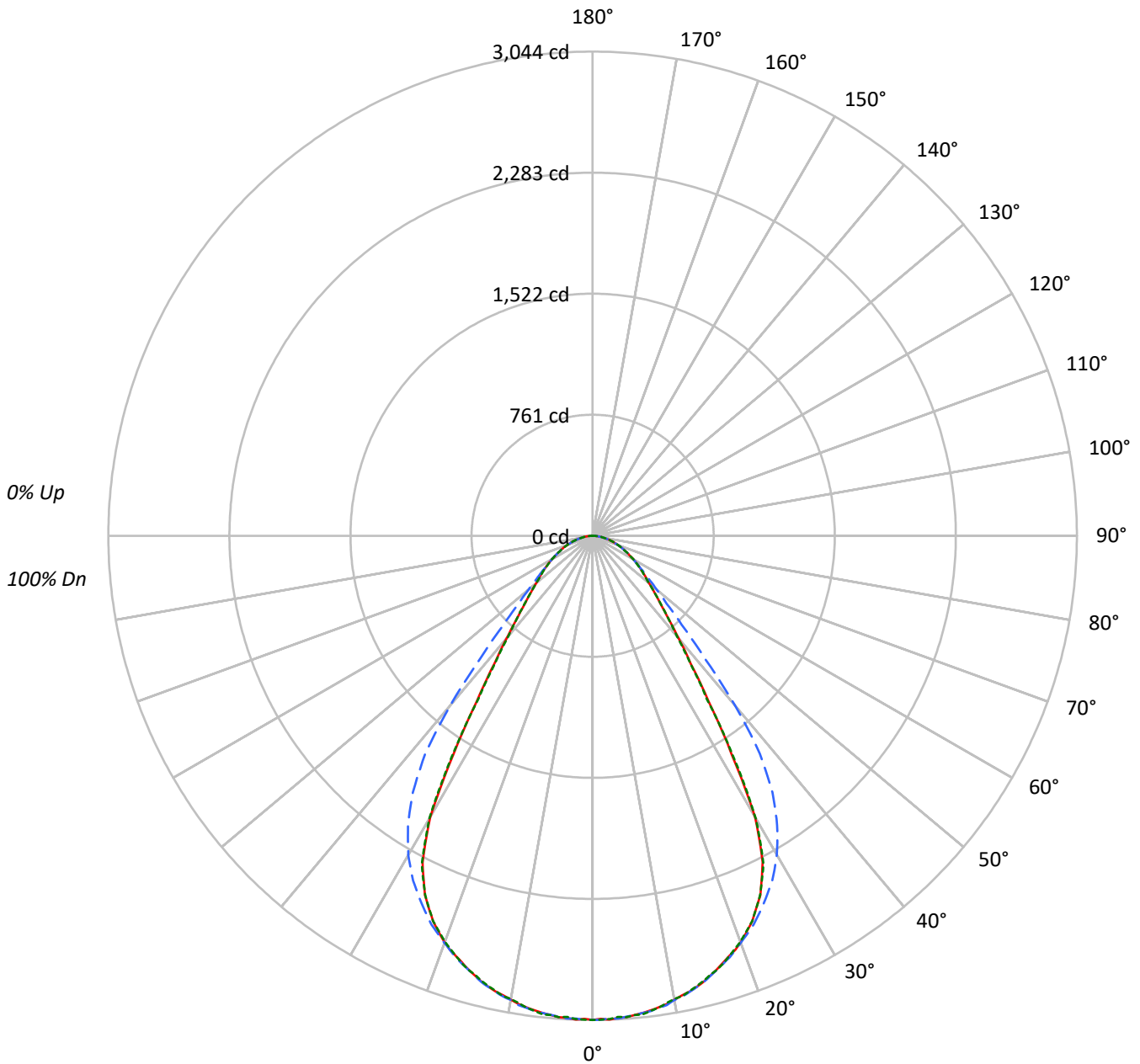
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4490.4 lumens
Efficiency: N/A
Efficacy: 80.2 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): 56
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

TEST NUMBER: P838763
CATALOG NUMBER: HCSQ660D010-HM64560930-61SQMW

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	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°	131074	131074	131074
5°	130745	130654	130745
10°	129468	129559	129280
15°	127541	127635	127349
20°	124669	124765	124375
25°	118448	120976	118344
30°	101426	115178	102063
35°	66642	103540	65638
40°	47111	78080	46274
45°	36528	48060	36790
50°	31067	35052	30779
55°	27947	28742	27947
60°	25282	25282	25282
65°	23188	22974	22974
70°	21161	21161	21426
75°	19813	19114	19463
80°	17406	17406	17406
85°	14721	14721	14721

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 48060 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.0	6.4
10°-20°	806.0	17.9
20°-30°	1148.5	25.6
30°-40°	979.3	21.8
40°-50°	541.8	12.1
50°-60°	341.2	7.6
60°-70°	226.6	5.0
70°-80°	124.5	2.8
80°-90°	35.5	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°	2241.5	49.9
0°-40°	3220.8	71.7
0°-60°	4103.8	91.4
0°-90°	4490.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4490.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3044	3044	3044	3044	3044	
5°	3025	3029	3023	3019	3025	287
15°	2861	2861	2863	2861	2857	806
25°	2493	2523	2546	2521	2491	1126
35°	1268	1496	1970	1498	1249	824
45°	600	657	789	653	604	476
55°	372	379	383	376	372	334
65°	228	230	226	228	226	226
75°	119	117	115	117	117	125
85°	30	30	30	32	30	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3044.3	3044.3	3044.3	3044.3	3044.3
1°	3037.9	3042.1	3042.1	3040.0	3042.1
2°	3044.3	3037.9	3037.9	3037.9	3040.0
3°	3035.7	3040.0	3040.0	3033.6	3029.4
4°	3033.6	3031.5	3031.5	3037.9	3033.6
5°	3025.1	3029.4	3023.0	3018.7	3025.1
6°	3016.6	3018.7	3016.6	3018.7	3025.1
7°	3006.0	3012.3	3010.2	3008.1	3008.1
8°	2993.2	3001.7	2997.5	2997.5	2995.3
9°	2980.4	2982.6	2986.8	2986.8	2974.1
10°	2961.3	2967.7	2963.4	2965.5	2957.0
11°	2944.3	2952.8	2950.7	2946.4	2948.5
12°	2929.4	2933.6	2931.5	2925.1	2927.2
13°	2910.2	2914.5	2912.4	2912.4	2906.0
14°	2889.0	2884.7	2891.1	2886.8	2884.7
15°	2861.3	2861.3	2863.4	2861.3	2857.0
16°	2835.8	2837.9	2837.9	2835.8	2837.9
17°	2806.0	2814.5	2812.4	2808.1	2810.2
18°	2778.3	2784.7	2786.8	2784.7	2778.3
19°	2752.8	2757.1	2754.9	2746.4	2746.4
20°	2720.9	2723.0	2723.0	2718.8	2714.5
22.5°	2620.9	2635.8	2646.4	2637.9	2620.9
25°	2493.3	2523.1	2546.5	2520.9	2491.1
27.5°	2314.6	2374.1	2444.3	2380.5	2325.2
30°	2040.1	2176.3	2316.7	2189.1	2052.9
32.5°	1623.2	1891.2	2159.3	1916.8	1648.7
35°	1267.9	1495.5	1969.9	1497.7	1248.8
37.5°	1012.6	1174.3	1727.4	1163.7	1002.0
40°	838.2	946.7	1389.2	942.4	823.3
42.5°	699.9	782.9	1040.3	774.4	699.9
45°	599.9	657.4	789.3	653.1	604.2
47.5°	525.5	561.6	631.8	559.5	525.5
50°	463.8	485.0	523.3	482.9	459.5
52.5°	414.8	427.6	442.5	423.3	410.6
55°	372.3	378.7	382.9	376.5	372.3
57.5°	331.9	336.1	334.0	331.9	329.7
60°	293.6	295.7	293.6	295.7	293.6
62.5°	259.5	261.7	257.4	259.5	257.4
65°	227.6	229.8	225.5	227.6	225.5
67.5°	197.8	197.8	197.8	197.8	195.7
70°	168.1	170.2	168.1	170.2	170.2
72.5°	142.5	142.5	140.4	142.5	142.5
75°	119.1	117.0	114.9	117.0	117.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	<i>51.1</i>	51.1	48.9	51.1	51.1
85°	<i>29.8</i>	29.8	29.8	31.9	29.8
87.5°	<i>14.9</i>	12.8	12.8	14.9	14.9
90°	<i>0.0</i>	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°	93.6	93.6	91.5	93.6	93.6
80°	70.2	72.3	70.2	72.3	70.2

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