

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: P838739

Luminaire Tested: HCSQ660D010-HM64560830-61SQC

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838739
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: HCSQ660D010-HM64560830-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

Summary

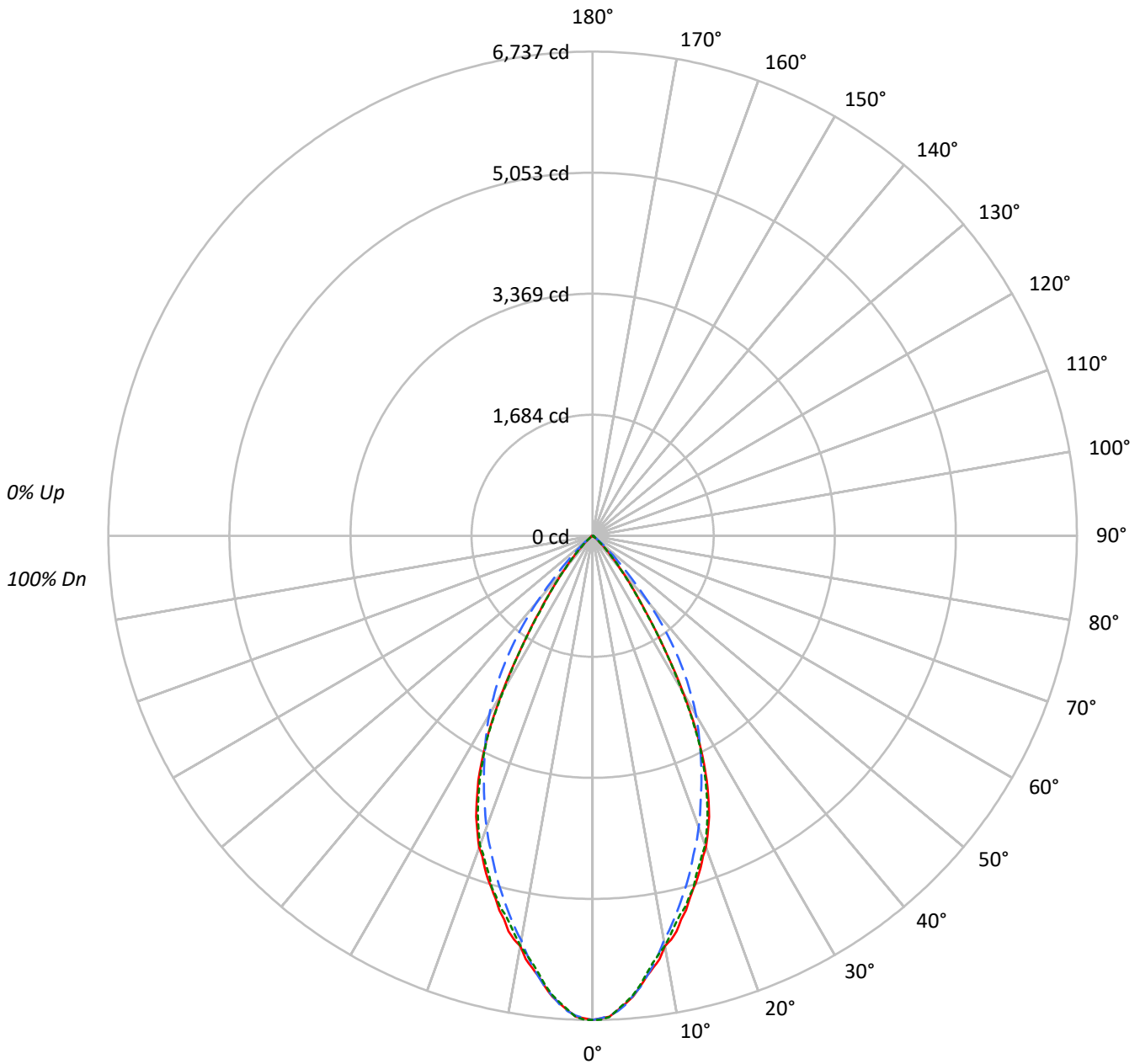
Lumens per Lamp: N/A
Luminaire Lumens: 5046.0 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 56
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	96	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	77	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°	290049	290049	290049
5°	278221	277737	277348
10°	253405	249960	253208
15°	232884	224357	231480
20°	211344	197731	209901
25°	178616	169955	176155
30°	125062	143074	122939
35°	67173	109748	65875
40°	33262	67913	33009
45°	14522	28637	14248
50°	4675	10402	4675
55°	2365	3378	2199
60°	1550	1550	1550
65°	1151	1151	1151
70°	856	856	856
75°	749	749	749
80°	570	570	570
85°	1136	1136	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 28637 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	591.6	11.7
10°-20°	1428.5	28.3
20°-30°	1650.1	32.7
30°-40°	1030.5	20.4
40°-50°	286.3	5.7
50°-60°	40.1	0.8
60°-70°	11.8	0.2
70°-80°	5.1	0.1
80°-90°	2.2	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°	3670.1	72.7
0°-40°	4700.6	93.2
0°-60°	5026.9	99.6
0°-90°	5046.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5046.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6737	6737	6737	6737	6737	
5°	6437	6419	6426	6417	6417	593
15°	5225	5126	5033	5112	5193	1463
25°	3760	3650	3578	3647	3708	1679
35°	1278	1577	2088	1559	1253	849
45°	238	304	470	302	234	207
55°	32	32	45	32	29	31
65°	11	11	11	11	11	12
75°	4	4	4	4	4	5
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6736.6	6736.6	6736.6	6736.6	6736.6
1°	6716.3	6716.3	6716.3	6734.3	6734.3
2°	6696.1	6691.6	6680.3	6693.8	6700.6
3°	6612.8	6621.8	6626.3	6619.6	6603.8
4°	6527.3	6518.3	6543.1	6527.3	6513.8
5°	6437.3	6419.3	6426.1	6417.1	6417.1
6°	6311.3	6333.8	6315.8	6300.1	6291.1
7°	6174.1	6192.1	6180.8	6158.3	6142.6
8°	6066.1	6054.8	6036.8	6032.3	6005.3
9°	5962.6	5922.1	5881.6	5888.3	5895.1
10°	5796.1	5800.6	5717.3	5780.3	5791.6
11°	5726.3	5701.6	5591.3	5643.1	5661.1
12°	5625.1	5546.3	5451.8	5494.6	5528.3
13°	5478.8	5397.8	5312.3	5377.6	5411.3
14°	5368.6	5276.3	5168.3	5251.6	5321.3
15°	5224.6	5125.6	5033.3	5112.1	5193.1
16°	5098.6	4983.8	4891.6	4968.1	5089.6
17°	4988.3	4846.6	4734.1	4815.1	4932.1
18°	4860.1	4695.8	4592.3	4677.8	4810.6
19°	4718.3	4551.8	4459.5	4529.3	4682.3
20°	4612.6	4425.8	4315.5	4383.0	4581.1
22.5°	4234.5	4038.8	3937.5	4018.5	4176.0
25°	3759.8	3649.5	3577.5	3647.3	3708.0
27.5°	3197.3	3197.3	3222.0	3192.8	3174.8
30°	2515.5	2697.8	2877.8	2688.8	2472.8
32.5°	1836.0	2128.5	2490.8	2166.8	1833.8
35°	1278.0	1577.3	2088.0	1559.3	1253.3
37.5°	888.8	1086.8	1647.0	1098.0	877.5
40°	591.8	729.0	1208.3	742.5	587.3
42.5°	387.0	481.5	780.8	483.8	378.0
45°	238.5	303.8	470.3	301.5	234.0
47.5°	139.5	180.0	274.5	182.3	137.3
50°	69.8	105.8	155.3	103.5	69.8
52.5°	40.5	56.3	85.5	54.0	40.5
55°	31.5	31.5	45.0	31.5	29.3
57.5°	24.8	24.8	24.8	24.8	22.5
60°	18.0	20.3	18.0	18.0	18.0
62.5°	15.8	15.8	13.5	15.8	13.5
65°	11.3	11.3	11.3	11.3	11.3
67.5°	9.0	9.0	9.0	9.0	9.0
70°	6.8	6.8	6.8	6.8	6.8
72.5°	4.5	6.8	4.5	6.8	6.8
75°	4.5	4.5	4.5	4.5	4.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	2.3	2.3	2.3	2.3	2.3
85°	2.3	2.3	2.3	2.3	2.3
87.5°	2.3	2.3	2.3	2.3	2.3
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°	4.5	4.5	4.5	4.5	2.3
80°	2.3	2.3	2.3	2.3	2.3

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(END OF REPORT)