

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: P838412

Luminaire Tested: HCSQ615D010-HM60525940-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838412
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ615D010-HM60525940-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

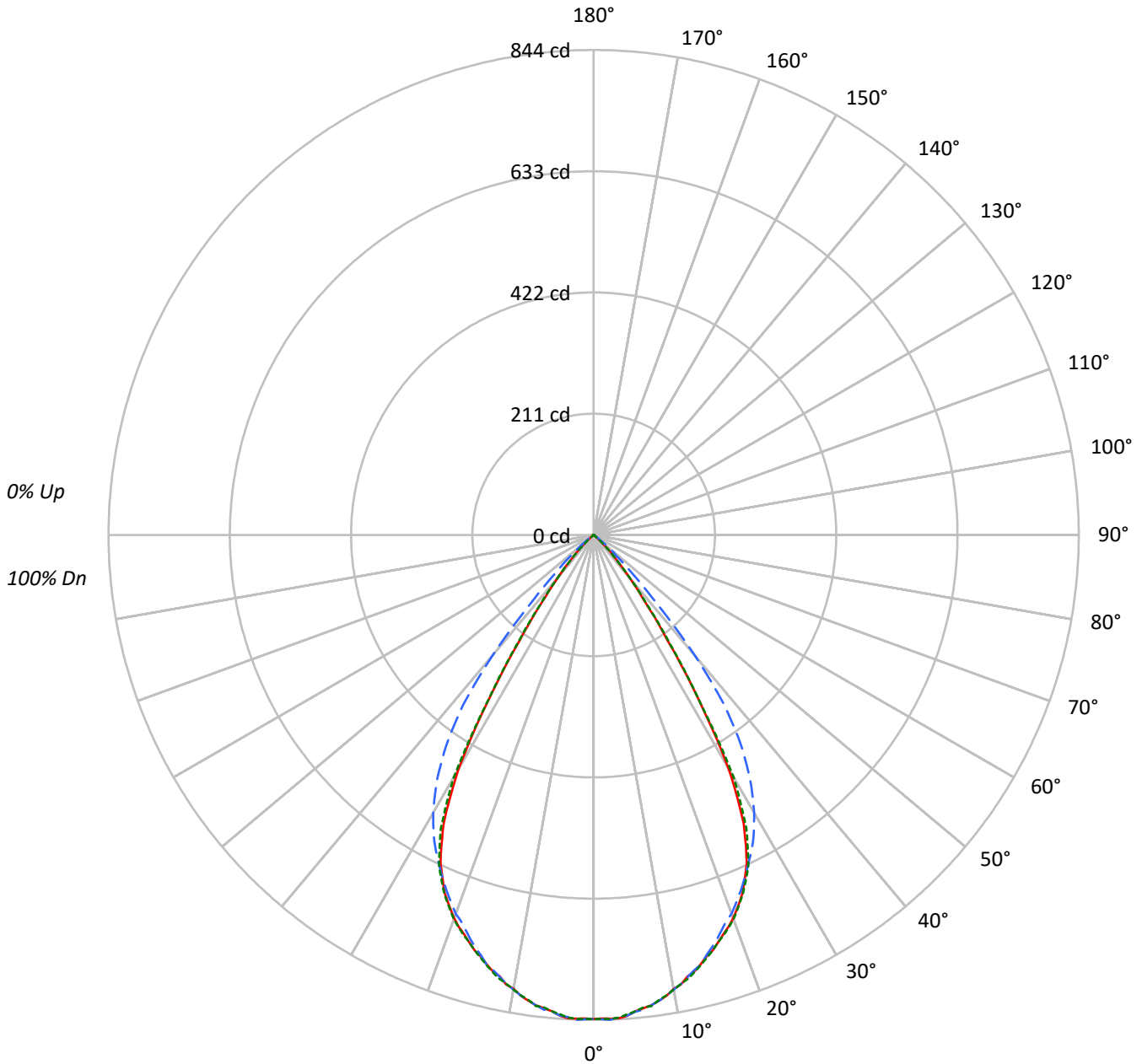
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 837.5 lumens
Efficiency: N/A
Efficacy: 59.8 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.01 / 1.03
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 14
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								
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93								
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87								
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81								
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75								
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70								
6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65								
7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60								
8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56								
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53								
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	36270	36270	36270
5°	35968	35998	35968
10°	35068	35125	35125
15°	33859	33770	33952
20°	32518	32142	32609
25°	29943	30171	30238
30°	23342	27762	24227
35°	11837	23526	12268
40°	5384	15383	5384
45°	2082	5791	2040
50°	322	1835	322
55°	105	360	105
60°	60	60	60
65°	71	0	71
70°	0	0	88
75°	0	0	116
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5791 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.7	9.4
10°-20°	213.3	25.5
20°-30°	287.6	34.3
30°-40°	202.2	24.1
40°-50°	51.6	6.2
50°-60°	3.6	0.4
60°-70°	0.4	0.1
70°-80°	0.1	0.0
80°-90°	0.0	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°	579.6	69.2
0°-40°	781.8	93.3
0°-60°	837.0	99.9
0°-90°	837.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	837.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	842	842	842	842	842	
5°	832	834	833	834	832	79
15°	760	758	758	760	762	214
25°	630	632	635	637	636	282
35°	225	298	448	306	233	152
45°	34	51	95	52	34	30
55°	1	1	5	1	1	2
65°	1	1	0	1	1	1
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	842.4	842.4	842.4	842.4	842.4
1°	841.8	842.4	843.1	843.1	842.4
2°	842.4	840.4	844.5	842.4	843.1
3°	842.4	838.3	840.4	841.8	841.1
4°	839.0	836.3	838.3	837.7	836.3
5°	832.2	833.5	832.9	833.5	832.2
6°	828.1	829.4	830.8	828.8	826.7
7°	824.7	824.0	824.7	826.0	826.0
8°	818.5	819.9	818.5	819.2	817.1
9°	811.7	811.7	811.7	813.0	811.0
10°	802.1	805.5	803.4	804.8	803.4
11°	797.3	795.9	795.9	796.6	795.9
12°	785.6	787.0	786.3	787.7	789.8
13°	779.5	780.2	777.4	780.9	780.9
14°	769.9	769.2	770.6	769.9	771.3
15°	759.6	758.3	757.6	759.6	761.7
16°	752.1	748.7	746.6	749.4	752.1
17°	741.2	737.7	735.0	740.5	741.2
18°	730.2	728.8	722.0	728.8	732.3
19°	721.3	716.5	710.4	717.9	722.0
20°	709.7	705.6	701.5	705.6	711.7
22.5°	676.1	672.7	669.3	674.1	677.5
25°	630.3	632.3	635.1	637.1	636.5
27.5°	565.3	583.8	600.9	589.9	575.5
30°	469.5	516.0	558.4	523.5	487.3
32.5°	340.1	419.5	507.8	435.3	343.5
35°	225.2	298.4	447.6	305.9	233.4
37.5°	146.5	200.5	373.7	201.2	153.3
40°	95.8	130.7	273.7	133.5	95.8
42.5°	58.9	82.8	166.3	86.2	58.9
45°	34.2	51.3	95.1	52.0	33.5
47.5°	15.7	28.1	54.1	27.4	16.4
50°	4.8	12.3	27.4	12.3	4.8
52.5°	2.1	3.4	13.0	3.4	2.1
55°	1.4	1.4	4.8	1.4	1.4
57.5°	1.4	0.7	1.4	1.4	1.4
60°	0.7	0.7	0.7	0.7	0.7
62.5°	0.7	0.7	0.7	0.7	0.7
65°	0.7	0.7	0.0	0.7	0.7
67.5°	0.7	0.0	0.0	0.0	0.7
70°	0.0	0.0	0.0	0.0	0.7
72.5°	0.0	0.0	0.0	0.0	0.7
75°	0.0	0.0	0.0	0.0	0.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0

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