

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P838441

Luminaire Tested: HCSQ620D010-HM60525930-61SQLWW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838441
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ620D010-HM60525930-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

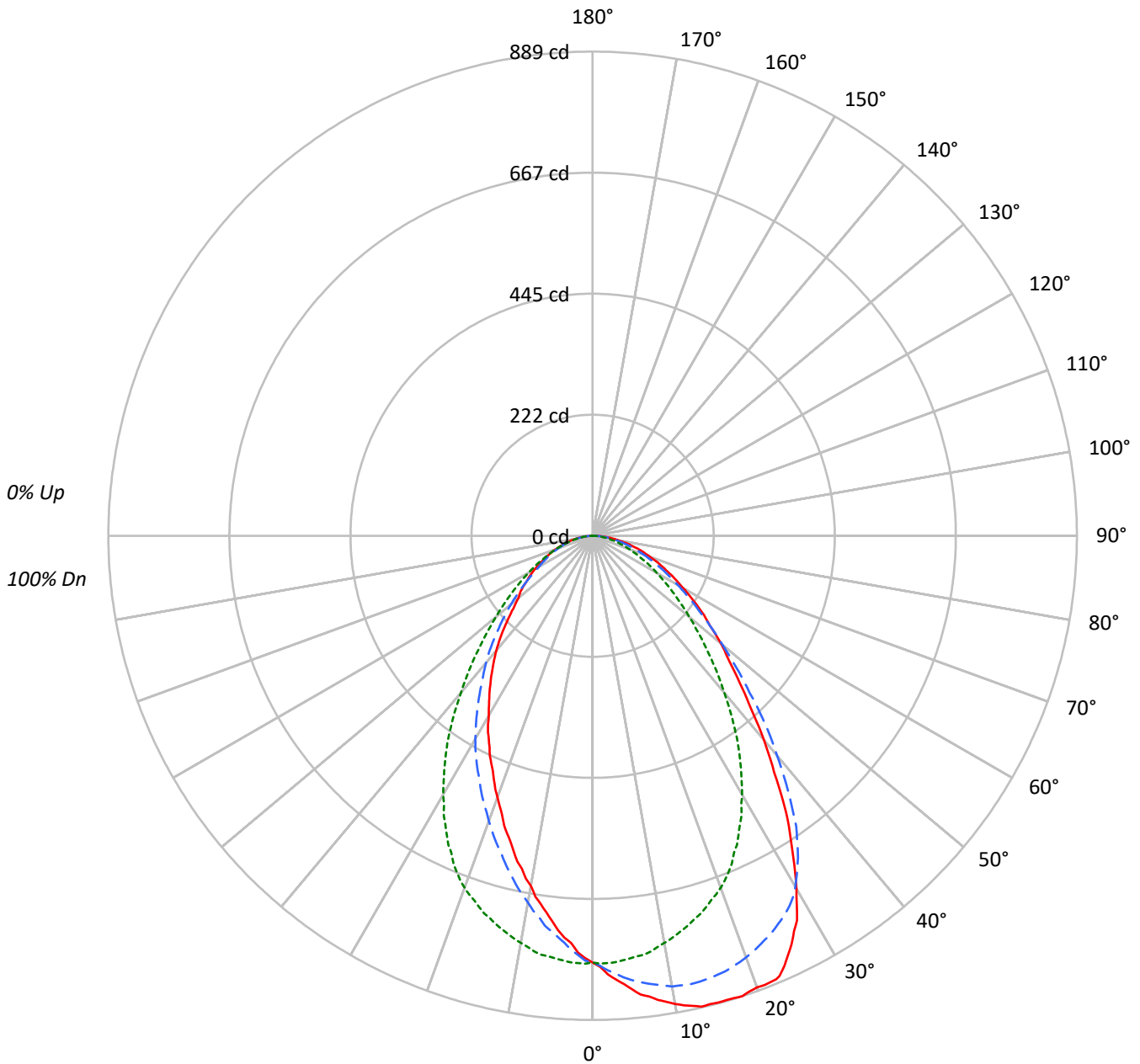
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1481.4 lumens
Efficiency: N/A
Efficacy: 74.1 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.08 / 1.17
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 20
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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	69	63	85	75	68	62	73	66	62	71	65	61	68	64	60	58								
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51								
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46								
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42								
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38								
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34								
10	58	46	39	34	57	45	38	34	44	38	34	44	38	33	43	37	33	32								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	75892	75892	75892	75892	75892
5°	81317	79649	75774	71855	70717
10°	85887	82675	74673	67246	64186
15°	89000	84206	72933	62332	58380
20°	90969	84912	70907	57412	52660
25°	90728	84903	66967	52622	47694
30°	83695	83270	61356	48134	42597
35°	73205	77025	54957	43048	38589
40°	61840	66664	47524	38508	34790
45°	52280	55849	40676	33785	30456
50°	46389	46834	34890	29449	26796
55°	41515	40088	30182	25351	25216
60°	37045	34933	26331	21933	23734
65°	34040	31049	22877	20378	21731
70°	31355	27800	20195	19006	20195
75°	29495	24797	17592	17255	18528
80°	27113	22232	15453	15900	16848
85°	27010	20063	13005	13005	14894

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 56308 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.9	5.0
10°-20°	205.9	13.9
20°-30°	293.8	19.8
30°-40°	302.7	20.4
40°-50°	243.7	16.5
50°-60°	172.3	11.6
60°-70°	111.7	7.5
70°-80°	60.0	4.1
80°-90°	17.3	1.2
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°	573.6	38.7
0°-40°	876.3	59.2
0°-60°	1292.4	87.2
0°-90°	1481.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1481.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	783	783	783	783	783	
5°	836	819	779	739	727	81
15°	887	840	727	622	582	251
25°	849	794	626	492	446	386
35°	619	651	465	364	326	384
45°	382	408	297	247	222	298
55°	246	237	179	150	149	220
65°	148	135	100	89	95	148
75°	79	66	47	46	50	84
85°	24	18	12	12	13	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	783.4	783.4	783.4	783.4	783.4	783.4	783.4	783.4	783.4	783.4	783.4
1°	791.8	795.1	792.6	792.6	790.1	789.3	790.9	788.4	787.6	785.9	782.6
2°	806.0	803.5	802.7	803.5	798.5	798.5	796.0	790.9	788.4	785.1	775.8
3°	816.1	814.4	812.8	811.9	806.9	802.7	799.3	793.5	788.4	784.2	770.8
4°	825.3	825.3	823.7	820.3	815.3	810.2	803.5	796.8	789.3	781.7	764.1
5°	836.2	837.1	829.5	828.7	822.8	815.3	807.7	798.5	789.3	779.2	759.9
6°	847.1	842.9	841.3	835.4	827.0	820.3	811.1	801.0	788.4	776.7	750.7
7°	852.2	851.3	847.1	841.3	833.7	822.8	813.6	800.2	786.7	775.0	744.0
8°	860.6	860.6	855.5	848.0	837.1	827.0	815.3	799.3	785.9	770.8	734.7
9°	866.4	866.4	859.7	853.0	842.9	829.5	816.1	798.5	781.7	764.1	726.4
10°	873.1	871.5	866.4	856.4	848.0	832.9	816.1	797.7	779.2	759.1	718.0
11°	878.2	875.7	869.8	862.2	848.8	833.7	816.1	797.7	775.8	754.0	709.6
12°	882.4	880.7	873.1	863.9	850.5	835.4	815.3	794.3	770.0	747.3	698.7
13°	887.4	882.4	874.8	866.4	851.3	833.7	811.9	789.3	765.8	741.5	689.5
14°	886.6	885.7	879.0	867.3	850.5	832.0	811.1	784.2	759.9	734.7	678.6
15°	887.4	886.6	879.0	868.1	849.7	829.5	808.6	780.9	754.0	727.2	667.6
16°	887.4	887.4	877.3	866.4	848.8	827.0	803.5	777.5	748.2	721.3	658.4
17°	887.4	887.4	879.0	863.9	846.3	825.3	798.5	770.8	741.5	712.9	645.0
18°	889.1	886.6	875.7	863.1	842.9	821.1	795.1	765.8	735.6	703.7	635.8
19°	884.9	883.2	874.0	858.0	840.4	816.1	790.1	759.9	729.7	696.2	624.9
20°	882.4	884.9	872.3	855.5	835.4	811.9	785.1	754.0	721.3	687.8	614.0
21°	883.2	882.4	868.9	851.3	832.0	806.0	779.2	747.3	712.1	677.7	603.9
22.5°	881.5	879.0	864.8	845.5	822.0	798.5	769.1	736.4	698.7	660.1	584.6
23°	878.2	875.7	864.8	843.8	818.6	795.1	764.1	729.7	693.6	654.2	579.6
24°	864.8	863.9	858.9	837.9	814.4	788.4	758.2	718.8	678.6	637.5	567.0
25°	848.8	850.5	848.0	834.6	807.7	780.9	749.0	705.4	664.3	626.5	551.9
26°	833.7	833.7	832.0	827.0	801.0	772.5	735.6	689.5	650.0	610.6	536.0
27°	814.4	817.8	814.4	811.9	794.3	763.3	721.3	678.6	634.1	595.5	522.5
28°	799.3	799.3	797.7	793.5	787.6	752.4	706.2	662.6	619.0	582.1	507.4
29°	772.5	777.5	778.4	779.2	778.4	738.1	692.0	645.0	603.1	562.8	493.2
30°	748.2	753.2	756.6	762.4	763.3	725.5	675.2	630.7	588.0	548.5	480.6
32.5°	681.9	691.1	700.4	710.4	715.5	687.8	634.1	585.4	541.8	506.6	442.0
35°	619.0	621.5	631.6	655.1	660.1	642.5	585.4	539.3	498.2	464.7	406.0
37.5°	547.7	552.7	567.0	593.8	595.5	581.3	541.8	488.2	449.6	420.2	369.1
40°	489.0	491.5	501.6	524.2	531.8	522.5	488.2	439.5	404.3	375.8	333.8
42.5°	430.3	433.6	446.2	463.8	474.7	463.8	433.6	391.7	357.3	336.3	300.3
45°	381.6	385.8	397.6	407.6	411.0	404.3	377.4	343.0	318.7	296.9	269.2
47.5°	339.7	343.9	352.3	356.5	360.7	354.0	333.0	304.5	280.1	262.5	237.4
50°	307.8	307.0	312.9	314.5	314.5	307.0	289.4	265.9	245.8	231.5	210.5
52.5°	271.8	273.4	277.6	275.9	275.1	268.4	253.3	233.2	216.4	203.8	184.5
55°	245.8	243.2	245.8	244.1	240.7	234.0	220.6	203.8	189.6	178.7	161.0
57.5°	217.2	217.2	218.1	214.7	210.5	203.0	191.2	177.8	165.2	156.0	141.7
60°	191.2	192.9	192.1	188.7	184.5	176.1	166.9	153.5	142.6	135.9	122.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	<i>130.0</i>	130.0	127.5	125.0	119.1	111.6	104.8	96.5	90.6	84.7	76.3
70°	<i>110.7</i>	112.4	109.0	104.8	100.7	95.6	88.1	81.4	75.5	71.3	64.6
72.5°	<i>95.6</i>	94.8	92.3	88.1	84.7	78.8	72.1	67.1	62.1	58.7	53.7
75°	<i>78.8</i>	78.8	76.3	73.0	68.8	63.7	58.7	54.5	50.3	47.0	44.5
77.5°	<i>62.9</i>	63.7	61.2	58.7	55.4	50.3	46.1	42.8	39.4	36.9	35.2
80°	<i>48.6</i>	49.5	47.0	45.3	41.1	38.6	35.2	31.9	29.4	27.7	26.8
82.5°	<i>36.9</i>	36.1	34.4	33.6	30.2	27.7	24.3	22.6	21.0	19.3	19.3
85°	<i>24.3</i>	23.5	22.6	21.8	19.3	16.8	15.9	14.3	12.6	11.7	11.7
87.5°	<i>12.6</i>	12.6	11.7	10.9	10.1	8.4	7.5	5.9	5.0	5.0	5.0
90°	<i>0.0</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	783.4	783.4	783.4
1°	780.0	776.7	775.8
2°	770.0	764.9	765.8
3°	760.7	754.9	749.0
4°	749.0	739.8	739.8
5°	738.9	729.7	727.2
6°	729.7	714.6	711.3
7°	721.3	702.9	697.0
8°	707.1	688.6	682.7
9°	697.0	676.9	671.0
10°	683.6	663.5	652.5
11°	672.7	650.0	641.6
12°	660.9	633.3	624.9
13°	647.5	619.0	614.0
14°	634.9	607.3	598.0
15°	621.5	593.0	582.1
16°	607.3	578.7	568.7
17°	595.5	563.6	556.1
18°	583.8	550.2	538.5
19°	569.5	537.6	524.2
20°	556.9	521.7	510.8
21°	543.5	510.0	498.2
22.5°	525.1	487.3	476.4
23°	519.2	480.6	468.9
24°	505.8	467.2	457.1
25°	492.3	457.1	446.2
26°	480.6	442.0	432.0
27°	468.9	430.3	419.4
28°	456.3	417.7	409.3
29°	443.7	404.3	395.9
30°	430.3	395.1	380.8
32.5°	396.7	364.9	353.1
35°	364.0	336.3	326.3
37.5°	332.1	309.5	300.3
40°	304.5	284.3	275.1
42.5°	275.9	257.5	248.3
45°	246.6	231.5	222.3
47.5°	219.8	207.2	197.1
50°	195.4	182.8	177.8
52.5°	171.9	163.6	166.1
55°	150.1	150.1	149.3
57.5°	129.2	135.0	135.9
60°	113.2	120.8	122.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	78.0	82.2	83.9
70°	67.1	70.5	71.3
72.5°	57.0	59.6	61.2
75°	46.1	49.5	49.5
77.5°	37.7	39.4	40.3
80°	28.5	29.4	30.2
82.5°	20.1	21.0	21.8
85°	11.7	12.6	13.4
87.5°	5.0	5.0	5.0
90°	0.0	0.0	0.0

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Report Generated By 670245859 / DESKTOP-T8S5UU9

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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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62.5°	169.4	171.1	168.6	164.4	160.2	152.7	144.3	132.5	124.1	117.4	105.7
65°	148.5	149.3	147.6	143.4	139.2	131.7	123.3	113.2	106.5	99.8	89.7

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62.5°	101.5	107.4	108.2
65°	88.9	93.9	94.8

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(END OF REPORT)