

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: P838376

Luminaire Tested: HCSQ615D010-HM60525827-61SQLWW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838376
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: HCSQ615D010-HM60525827-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

Summary

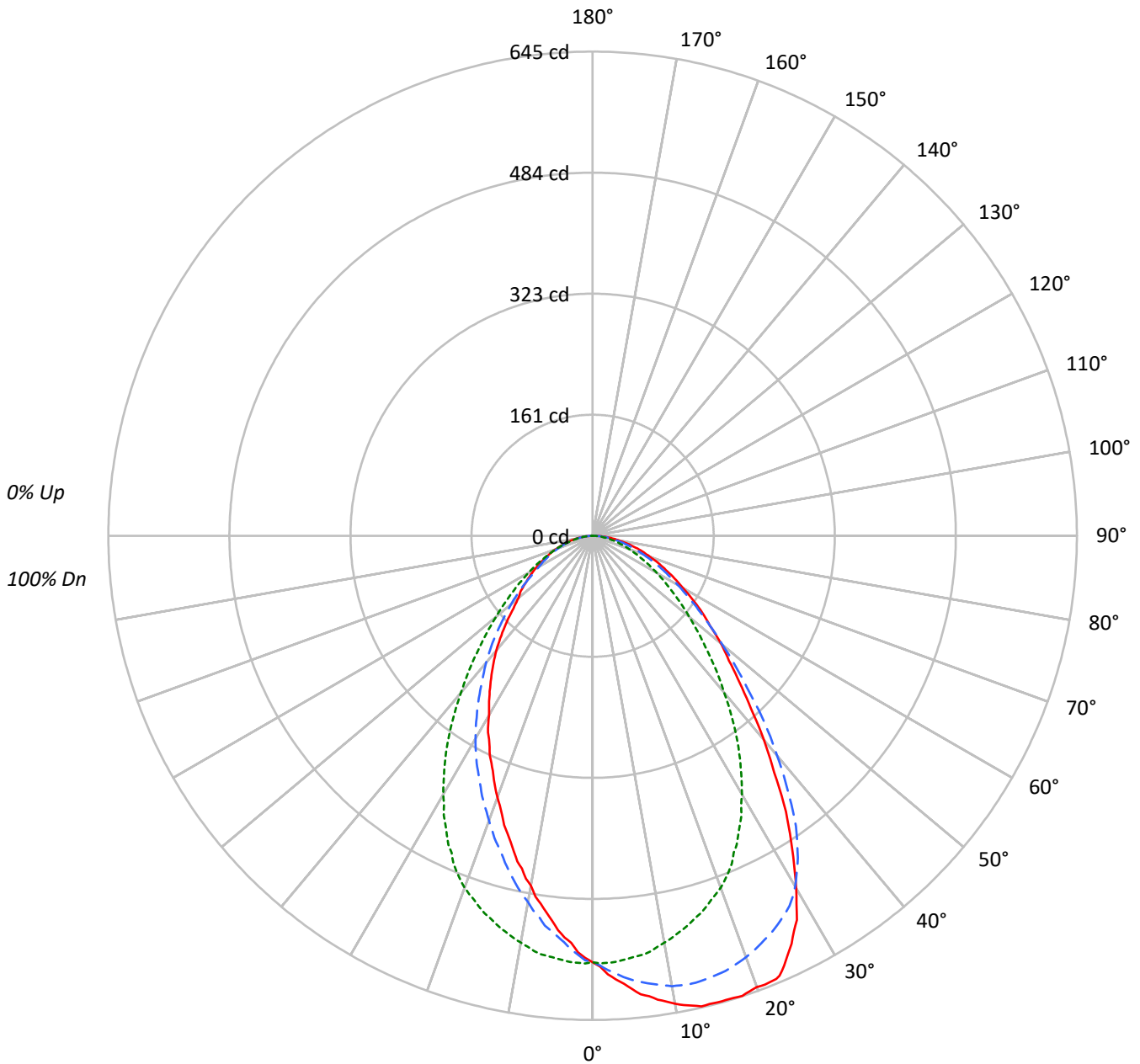
Lumens per Lamp: N/A
Luminaire Lumens: 1074.2 lumens
Efficiency: N/A
Efficacy: 76.7 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.08 / 1.17
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	55035	55035	55035	55035	55035
5°	58970	57754	54944	52104	51278
10°	62278	59947	54143	48762	46549
15°	64538	61058	52884	45202	42334
20°	65959	61572	51412	41629	38186
25°	65791	61563	48560	38160	34590
30°	60685	60383	44499	34901	30885
35°	53088	55856	39843	31221	27981
40°	44843	48340	34461	27923	25229
45°	37909	40498	29497	24496	22085
50°	33639	33963	25304	21356	19427
55°	30097	29076	21872	18393	18292
60°	26873	25333	19084	15907	17205
65°	24688	22522	16596	14785	15748
70°	22745	20153	14644	13794	14644
75°	21410	17985	12764	12539	13437
80°	19693	16123	11213	11548	12218
85°	19563	14561	9448	9448	10782

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 40827 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.6	5.0
10°-20°	149.3	13.9
20°-30°	213.0	19.8
30°-40°	219.5	20.4
40°-50°	176.7	16.5
50°-60°	125.0	11.6
60°-70°	81.0	7.5
70°-80°	43.5	4.1
80°-90°	12.6	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°	415.9	38.7
0°-40°	635.5	59.2
0°-60°	937.1	87.2
0°-90°	1074.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1074.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	568	568	568	568	568	
5°	606	594	565	536	527	59
15°	644	609	527	451	422	182
25°	616	576	454	357	324	280
35°	449	472	337	264	237	279
45°	277	296	215	179	161	216
55°	178	172	130	109	108	159
65°	108	98	72	64	69	107
75°	57	48	34	34	36	61
85°	18	13	8	8	10	19
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°	568.1	568.1	568.1	568.1	568.1	568.1	568.1	568.1	568.1	568.1	568.1
1°	574.1	576.6	574.8	574.8	572.9	572.3	573.5	571.7	571.1	569.9	567.5
2°	584.5	582.7	582.1	582.7	579.0	579.0	577.2	573.5	571.7	569.3	562.6
3°	591.8	590.6	589.4	588.7	585.1	582.1	579.6	575.4	571.7	568.7	558.9
4°	598.5	598.5	597.3	594.8	591.2	587.5	582.7	577.8	572.3	566.8	554.1
5°	606.4	607.0	601.5	600.9	596.6	591.2	585.7	579.0	572.3	565.0	551.0
6°	614.3	611.2	610.0	605.8	599.7	594.8	588.1	580.8	571.7	563.2	544.3
7°	617.9	617.3	614.3	610.0	604.6	596.6	590.0	580.2	570.5	562.0	539.5
8°	624.0	624.0	620.4	614.9	607.0	599.7	591.2	579.6	569.9	558.9	532.8
9°	628.3	628.3	623.4	618.5	611.2	601.5	591.8	579.0	566.8	554.1	526.7
10°	633.1	631.9	628.3	621.0	614.9	603.9	591.8	578.4	565.0	550.4	520.6
11°	636.8	635.0	630.7	625.2	615.5	604.6	591.8	578.4	562.6	546.8	514.5
12°	639.8	638.6	633.1	626.5	616.7	605.8	591.2	576.0	558.3	541.9	506.6
13°	643.5	639.8	634.4	628.3	617.3	604.6	588.7	572.3	555.3	537.7	499.9
14°	642.9	642.3	637.4	628.9	616.7	603.3	588.1	568.7	551.0	532.8	492.0
15°	643.5	642.9	637.4	629.5	616.1	601.5	586.3	566.2	546.8	527.3	484.1
16°	643.5	643.5	636.2	628.3	615.5	599.7	582.7	563.8	542.5	523.1	477.4
17°	643.5	643.5	637.4	626.5	613.7	598.5	579.0	558.9	537.7	517.0	467.7
18°	644.7	642.9	635.0	625.8	611.2	595.4	576.6	555.3	533.4	510.3	461.0
19°	641.7	640.4	633.8	622.2	609.4	591.8	572.9	551.0	529.1	504.8	453.1
20°	639.8	641.7	632.5	620.4	605.8	588.7	569.3	546.8	523.1	498.7	445.2
21°	640.4	639.8	630.1	617.3	603.3	584.5	565.0	541.9	516.4	491.4	437.9
22.5°	639.2	637.4	627.1	613.1	596.0	579.0	557.7	534.0	506.6	478.7	423.9
23°	636.8	635.0	627.1	611.9	593.6	576.6	554.1	529.1	503.0	474.4	420.3
24°	627.1	626.5	622.8	607.6	590.6	571.7	549.8	521.2	492.0	462.2	411.1
25°	615.5	616.7	614.9	605.2	585.7	566.2	543.1	511.5	481.7	454.3	400.2
26°	604.6	604.6	603.3	599.7	580.8	560.2	533.4	499.9	471.4	442.8	388.6
27°	590.6	593.0	590.6	588.7	576.0	553.5	523.1	492.0	459.8	431.8	378.9
28°	579.6	579.6	578.4	575.4	571.1	545.6	512.1	480.5	448.9	422.1	368.0
29°	560.2	563.8	564.4	565.0	564.4	535.2	501.8	467.7	437.3	408.1	357.6
30°	542.5	546.2	548.6	552.9	553.5	526.1	489.6	457.4	426.4	397.8	348.5
32.5°	494.5	501.2	507.9	515.2	518.8	498.7	459.8	424.5	392.9	367.4	320.5
35°	448.9	450.7	458.0	475.0	478.7	465.9	424.5	391.1	361.3	336.9	294.4
37.5°	397.2	400.8	411.1	430.6	431.8	421.5	392.9	354.0	326.0	304.7	267.6
40°	354.6	356.4	363.7	380.1	385.6	378.9	354.0	318.7	293.2	272.5	242.1
42.5°	312.0	314.4	323.6	336.3	344.2	336.3	314.4	284.0	259.1	243.9	217.7
45°	276.7	279.8	288.3	295.6	298.0	293.2	273.7	248.8	231.1	215.3	195.2
47.5°	246.3	249.4	255.4	258.5	261.5	256.7	241.5	220.8	203.1	190.4	172.1
50°	223.2	222.6	226.9	228.1	228.1	222.6	209.8	192.8	178.2	167.9	152.7
52.5°	197.1	198.3	201.3	200.1	199.5	194.6	183.7	169.1	156.9	147.8	133.8
55°	178.2	176.4	178.2	177.0	174.6	169.7	160.0	147.8	137.5	129.5	116.8
57.5°	157.5	157.5	158.1	155.7	152.7	147.2	138.7	128.9	119.8	113.1	102.8
60°	138.7	139.9	139.3	136.8	133.8	127.7	121.0	111.3	103.4	98.5	88.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	94.3	94.3	92.4	90.6	86.4	80.9	76.0	69.9	65.7	61.4	55.3
70°	80.3	81.5	79.1	76.0	73.0	69.3	63.9	59.0	54.7	51.7	46.8
72.5°	69.3	68.7	66.9	63.9	61.4	57.2	52.3	48.7	45.0	42.6	38.9
75°	57.2	57.2	55.3	52.9	49.9	46.2	42.6	39.5	36.5	34.1	32.2
77.5°	45.6	46.2	44.4	42.6	40.1	36.5	33.5	31.0	28.6	26.8	25.5
80°	35.3	35.9	34.1	32.8	29.8	28.0	25.5	23.1	21.3	20.1	19.5
82.5°	26.8	26.2	24.9	24.3	21.9	20.1	17.6	16.4	15.2	14.0	14.0
85°	17.6	17.0	16.4	15.8	14.0	12.2	11.6	10.3	9.1	8.5	8.5
87.5°	9.1	9.1	8.5	7.9	7.3	6.1	5.5	4.3	3.6	3.6	3.6
90°	0.0	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°	568.1	568.1	568.1
1°	565.6	563.2	562.6
2°	558.3	554.7	555.3
3°	551.6	547.4	543.1
4°	543.1	536.4	536.4
5°	535.8	529.1	527.3
6°	529.1	518.2	515.8
7°	523.1	509.7	505.4
8°	512.7	499.3	495.1
9°	505.4	490.8	486.6
10°	495.7	481.1	473.2
11°	487.8	471.4	465.3
12°	479.3	459.2	453.1
13°	469.5	448.9	445.2
14°	460.4	440.3	433.7
15°	450.7	430.0	422.1
16°	440.3	419.7	412.4
17°	431.8	408.7	403.2
18°	423.3	399.0	390.5
19°	413.0	389.9	380.1
20°	403.8	378.3	370.4
21°	394.1	369.8	361.3
22.5°	380.7	353.4	345.5
23°	376.5	348.5	340.0
24°	366.7	338.8	331.5
25°	357.0	331.5	323.6
26°	348.5	320.5	313.2
27°	340.0	312.0	304.1
28°	330.9	302.9	296.8
29°	321.7	293.2	287.1
30°	312.0	286.5	276.1
32.5°	287.7	264.6	256.1
35°	264.0	243.9	236.6
37.5°	240.8	224.4	217.7
40°	220.8	206.2	199.5
42.5°	200.1	186.7	180.0
45°	178.8	167.9	161.2
47.5°	159.3	150.2	142.9
50°	141.7	132.6	128.9
52.5°	124.7	118.6	120.4
55°	108.9	108.9	108.3
57.5°	93.7	97.9	98.5
60°	82.1	87.6	88.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	56.6	59.6	60.8
70°	48.7	51.1	51.7
72.5°	41.4	43.2	44.4
75°	33.5	35.9	35.9
77.5°	27.4	28.6	29.2
80°	20.7	21.3	21.9
82.5°	14.6	15.2	15.8
85°	8.5	9.1	9.7
87.5°	3.6	3.6	3.6
90°	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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62.5°	122.9	124.1	122.2	119.2	116.2	110.7	104.6	96.1	90.0	85.1	76.6
65°	107.7	108.3	107.0	104.0	101.0	95.5	89.4	82.1	77.2	72.4	65.1

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62.5°	73.6	77.9	78.5
65°	64.5	68.1	68.7

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(END OF REPORT)