

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: P838411

Luminaire Tested: HCSQ615D010-HM60525940-61SQLWW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838411
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-HM60525940-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

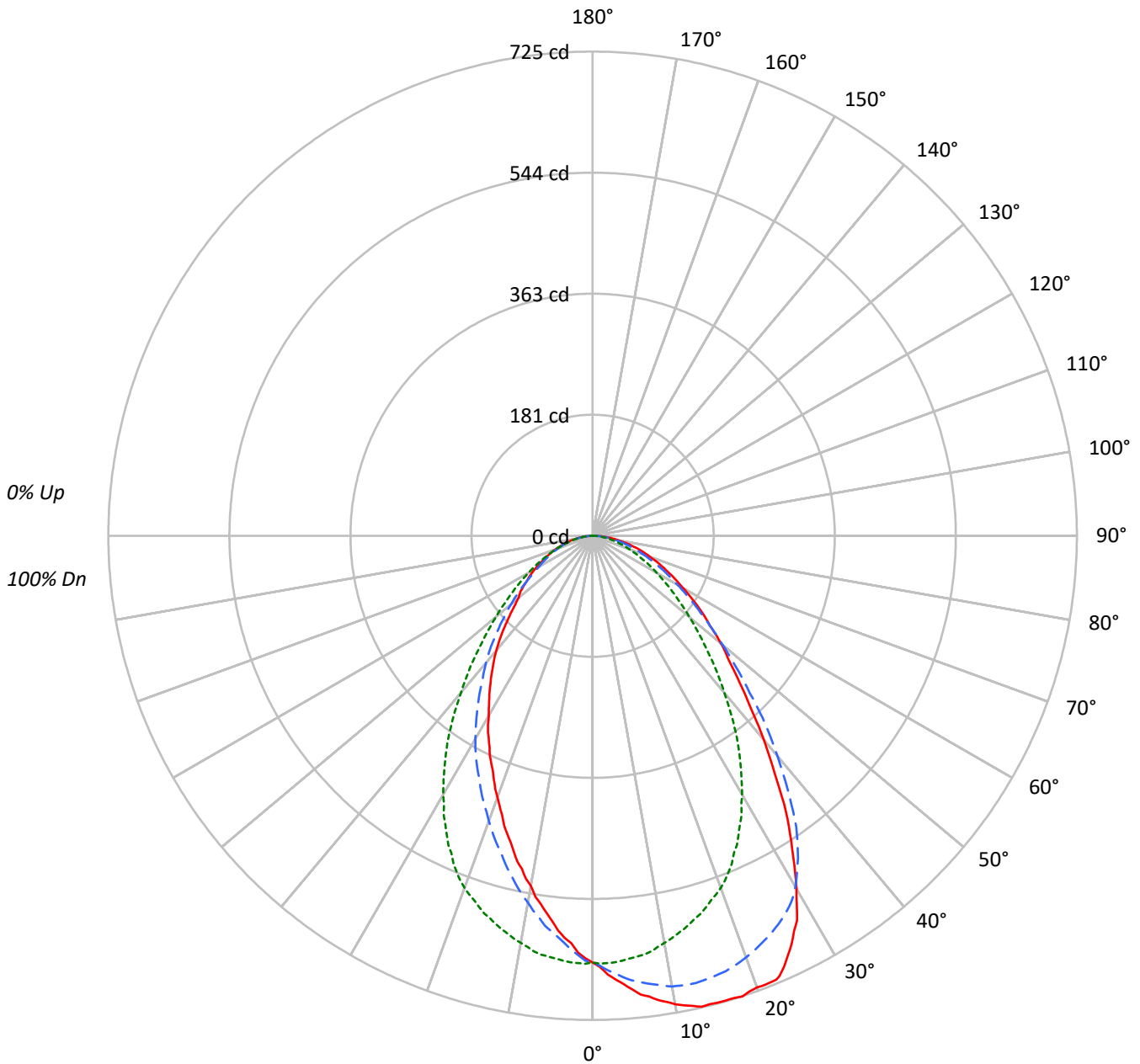
Lumens per Lamp: N/A
Luminaire Lumens: 1208.3 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.08 / 1.17
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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	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°	61903	61903	61903	61903	61903
5°	66331	64965	61800	58610	57676
10°	70059	67428	60901	54851	52352
15°	72592	68681	59484	50838	47619
20°	74196	69258	57835	46825	42948
25°	74000	69249	54621	42927	38897
30°	68258	67917	50047	39252	34744
35°	59711	62821	44822	35112	31470
40°	50433	54372	38761	31400	28378
45°	42649	45546	33182	27551	24839
50°	37844	38198	28454	24023	21853
55°	33847	32698	24608	20690	20572
60°	30225	28501	21468	17903	19356
65°	27759	25330	18659	16619	17719
70°	25577	22674	16457	15493	16457
75°	24067	20231	14336	14074	15122
80°	22148	18131	12608	12999	13724
85°	22008	16339	10671	10671	12116

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 45923 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.3	5.0
10°-20°	168.0	13.9
20°-30°	239.6	19.8
30°-40°	246.9	20.4
40°-50°	198.8	16.5
50°-60°	140.6	11.6
60°-70°	91.1	7.5
70°-80°	48.9	4.1
80°-90°	14.1	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°	467.8	38.7
0°-40°	714.8	59.2
0°-60°	1054.1	87.2
0°-90°	1208.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1208.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	639	639	639	639	639	
5°	682	668	636	603	593	66
15°	724	685	593	507	475	205
25°	692	648	511	402	364	315
35°	505	531	379	297	266	313
45°	311	332	242	201	181	243
55°	200	194	146	122	122	179
65°	121	110	81	72	77	121
75°	64	54	38	38	40	68
85°	20	15	10	10	11	22
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°	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
1°	645.8	648.5	646.5	646.5	644.4	643.7	645.1	643.1	642.4	641.0	638.3
2°	657.4	655.4	654.7	655.4	651.3	651.3	649.2	645.1	643.1	640.3	632.8
3°	665.6	664.3	662.9	662.2	658.1	654.7	652.0	647.2	643.1	639.6	628.7
4°	673.2	673.2	671.8	669.1	665.0	660.9	655.4	649.9	643.7	637.6	623.2
5°	682.1	682.7	676.6	675.9	671.1	665.0	658.8	651.3	643.7	635.5	619.8
6°	691.0	687.5	686.2	681.4	674.5	669.1	661.5	653.3	643.1	633.5	612.3
7°	695.1	694.4	691.0	686.2	680.0	671.1	663.6	652.6	641.7	632.1	606.8
8°	701.9	701.9	697.8	691.6	682.7	674.5	665.0	652.0	641.0	628.7	599.3
9°	706.7	706.7	701.2	695.7	687.5	676.6	665.6	651.3	637.6	623.2	592.4
10°	712.2	710.8	706.7	698.5	691.6	679.3	665.6	650.6	635.5	619.1	585.6
11°	716.3	714.2	709.4	703.3	692.3	680.0	665.6	650.6	632.8	615.0	578.8
12°	719.7	718.3	712.2	704.6	693.7	681.4	665.0	647.9	628.0	609.5	569.9
13°	723.8	719.7	713.5	706.7	694.4	680.0	662.2	643.7	624.6	604.8	562.3
14°	723.1	722.4	716.9	707.4	693.7	678.6	661.5	639.6	619.8	599.3	553.4
15°	723.8	723.1	716.9	708.1	693.0	676.6	659.5	636.9	615.0	593.1	544.6
16°	723.8	723.8	715.6	706.7	692.3	674.5	655.4	634.2	610.2	588.3	537.0
17°	723.8	723.8	716.9	704.6	690.3	673.2	651.3	628.7	604.8	581.5	526.1
18°	725.2	723.1	714.2	703.9	687.5	669.7	648.5	624.6	600.0	574.0	518.6
19°	721.7	720.4	712.8	699.8	685.5	665.6	644.4	619.8	595.2	567.8	509.7
20°	719.7	721.7	711.5	697.8	681.4	662.2	640.3	615.0	588.3	561.0	500.8
21°	720.4	719.7	708.7	694.4	678.6	657.4	635.5	609.5	580.8	552.8	492.6
22.5°	719.0	716.9	705.3	689.6	670.4	651.3	627.3	600.6	569.9	538.4	476.8
23°	716.3	714.2	705.3	688.2	667.7	648.5	623.2	595.2	565.8	533.6	472.7
24°	705.3	704.6	700.5	683.4	664.3	643.1	618.4	586.3	553.4	519.9	462.5
25°	692.3	693.7	691.6	680.7	658.8	636.9	610.9	575.3	541.8	511.0	450.1
26°	680.0	680.0	678.6	674.5	653.3	630.1	600.0	562.3	530.2	498.0	437.1
27°	664.3	667.0	664.3	662.2	647.9	622.5	588.3	553.4	517.2	485.7	426.2
28°	652.0	652.0	650.6	647.2	642.4	613.6	576.0	540.4	504.9	474.8	413.9
29°	630.1	634.2	634.9	635.5	634.9	602.0	564.4	526.1	491.9	459.0	402.3
30°	610.2	614.3	617.1	621.9	622.5	591.8	550.7	514.5	479.6	447.4	392.0
32.5°	556.2	563.7	571.2	579.4	583.5	561.0	517.2	477.5	441.9	413.2	360.5
35°	504.9	506.9	515.1	534.3	538.4	524.0	477.5	439.9	406.4	379.0	331.1
37.5°	446.7	450.8	462.5	484.4	485.7	474.1	441.9	398.2	366.7	342.7	301.0
40°	398.8	400.9	409.1	427.6	433.7	426.2	398.2	358.5	329.7	306.5	272.3
42.5°	350.9	353.7	363.9	378.3	387.2	378.3	353.7	319.5	291.4	274.3	244.9
45°	311.3	314.7	324.3	332.5	335.2	329.7	307.8	279.8	260.0	242.2	219.6
47.5°	277.1	280.5	287.3	290.7	294.2	288.7	271.6	248.3	228.5	214.1	193.6
50°	251.1	250.4	255.2	256.5	256.5	250.4	236.0	216.9	200.4	188.8	171.7
52.5°	221.7	223.0	226.4	225.1	224.4	218.9	206.6	190.2	176.5	166.2	150.5
55°	200.4	198.4	200.4	199.1	196.3	190.9	179.9	166.2	154.6	145.7	131.3
57.5°	177.2	177.2	177.9	175.1	171.7	165.6	156.0	145.0	134.8	127.2	115.6
60°	156.0	157.3	156.7	153.9	150.5	143.7	136.1	125.2	116.3	110.8	99.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	106.0	106.0	104.0	101.9	97.1	91.0	85.5	78.7	73.9	69.1	62.3
70°	90.3	91.7	88.9	85.5	82.1	78.0	71.8	66.4	61.6	58.1	52.7
72.5°	78.0	77.3	75.3	71.8	69.1	64.3	58.8	54.7	50.6	47.9	43.8
75°	64.3	64.3	62.3	59.5	56.1	52.0	47.9	44.5	41.0	38.3	36.3
77.5°	51.3	52.0	49.9	47.9	45.2	41.0	37.6	34.9	32.2	30.1	28.7
80°	39.7	40.4	38.3	36.9	33.5	31.5	28.7	26.0	23.9	22.6	21.9
82.5°	30.1	29.4	28.0	27.4	24.6	22.6	19.8	18.5	17.1	15.7	15.7
85°	19.8	19.2	18.5	17.8	15.7	13.7	13.0	11.6	10.3	9.6	9.6
87.5°	10.3	10.3	9.6	8.9	8.2	6.8	6.2	4.8	4.1	4.1	4.1
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°	639.0	639.0	639.0
1°	636.2	633.5	632.8
2°	628.0	623.9	624.6
3°	620.5	615.7	610.9
4°	610.9	603.4	603.4
5°	602.7	595.2	593.1
6°	595.2	582.9	580.1
7°	588.3	573.3	568.5
8°	576.7	561.7	556.9
9°	568.5	552.1	547.3
10°	557.6	541.1	532.2
11°	548.7	530.2	523.3
12°	539.1	516.5	509.7
13°	528.1	504.9	500.8
14°	517.9	495.3	487.8
15°	506.9	483.7	474.8
16°	495.3	472.0	463.8
17°	485.7	459.7	453.6
18°	476.1	448.8	439.2
19°	464.5	438.5	427.6
20°	454.2	425.5	416.6
21°	443.3	415.9	406.4
22.5°	428.3	397.5	388.6
23°	423.5	392.0	382.4
24°	412.5	381.0	372.8
25°	401.6	372.8	363.9
26°	392.0	360.5	352.3
27°	382.4	350.9	342.1
28°	372.2	340.7	333.8
29°	361.9	329.7	322.9
30°	350.9	322.2	310.6
32.5°	323.6	297.6	288.0
35°	296.9	274.3	266.1
37.5°	270.9	252.4	244.9
40°	248.3	231.9	224.4
42.5°	225.1	210.0	202.5
45°	201.1	188.8	181.3
47.5°	179.2	169.0	160.8
50°	159.4	149.1	145.0
52.5°	140.2	133.4	135.5
55°	122.5	122.5	121.8
57.5°	105.4	110.1	110.8
60°	92.4	98.5	99.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	63.6	67.0	68.4
70°	54.7	57.5	58.1
72.5°	46.5	48.6	49.9
75°	37.6	40.4	40.4
77.5°	30.8	32.2	32.8
80°	23.3	23.9	24.6
82.5°	16.4	17.1	17.8
85°	9.6	10.3	10.9
87.5°	4.1	4.1	4.1
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



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°	138.2	139.6	137.5	134.1	130.7	124.5	117.7	108.1	101.2	95.8	86.2
65°	121.1	121.8	120.4	117.0	113.6	107.4	100.6	92.4	86.9	81.4	73.2

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62.5°	82.8	87.6	88.3
65°	72.5	76.6	77.3

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Scaled Data Report



(END OF REPORT)