

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: P837465

Luminaire Tested: HCSQ430D010-HM43040935-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837465
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ430D010-HM43040935-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

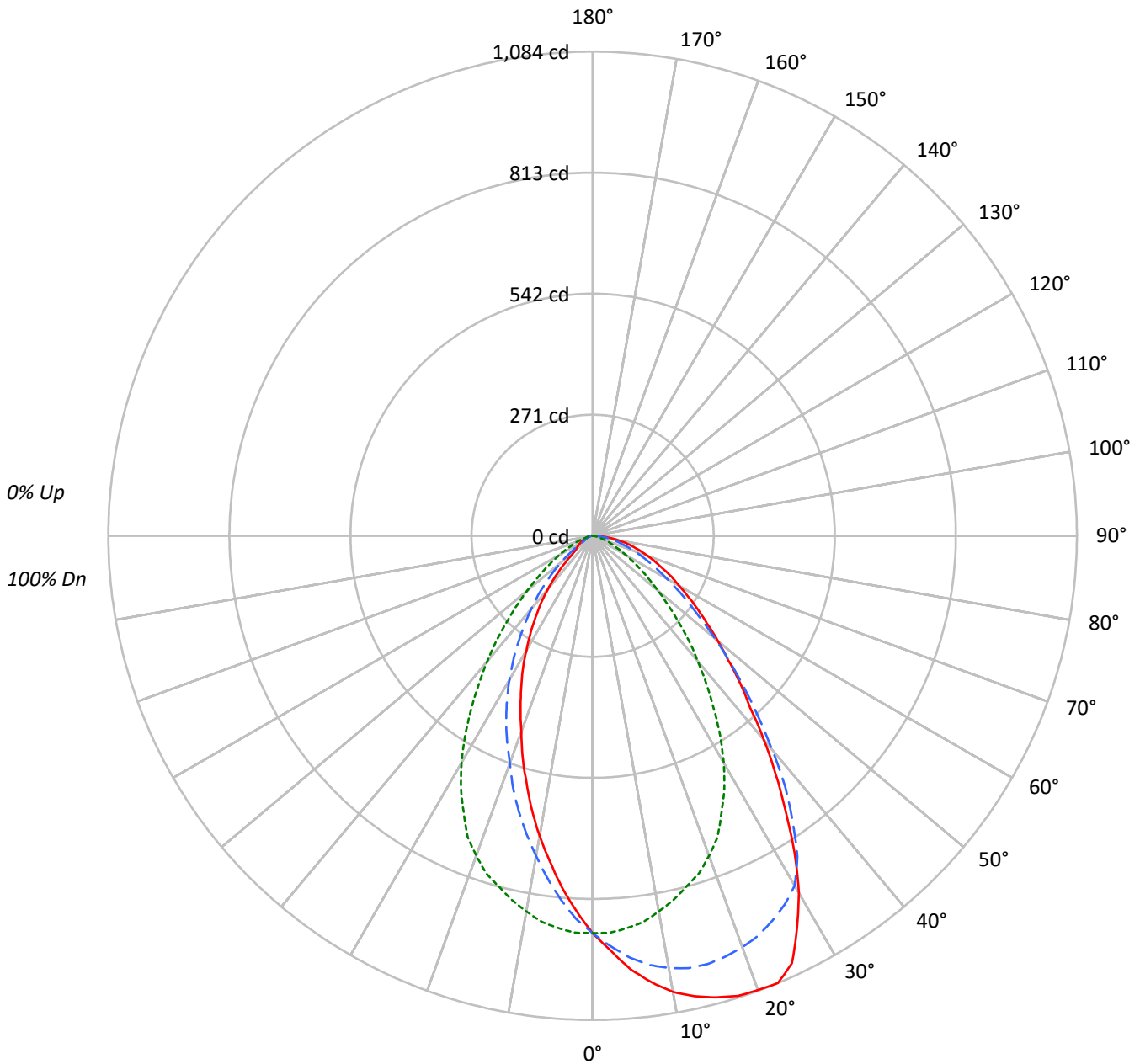
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1438.7 lumens
Efficiency: N/A
Efficacy: 51.0 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 1.04 / 1.12
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89								
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78								
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69								
4	89	79	72	67	87	78	71	66	76	70	65	74	69	64	72	67	64	62								
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55								
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50								
7	73	61	54	48	71	60	53	48	59	53	48	58	52	48	56	51	47	45								
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42								
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38								
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	86171	86171	86171	86171	86171
5°	94717	92140	85761	79498	76804
10°	102019	96678	84018	71613	67147
15°	107303	99581	81488	64027	57317
20°	111598	101062	78557	55794	48124
25°	112876	101685	72963	48956	40458
30°	103305	101190	65630	41635	33167
35°	89076	92363	55950	34166	26266
40°	75472	78975	46272	26962	19627
45°	63953	65515	36991	20057	12618
50°	55145	53804	28711	13504	7611
55°	48592	44319	21940	7465	6823
60°	43265	37161	16372	4146	6103
65°	39610	31817	12149	3759	5501
70°	36794	27503	8922	3569	5353
75°	34473	24067	6138	3294	4716
80°	33082	21088	4240	3515	4240
85°	32234	18229	2779	2779	2779

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 66542 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.4	5.8
10°-20°	229.6	16.0
20°-30°	321.0	22.3
30°-40°	313.8	21.8
40°-50°	227.7	15.8
50°-60°	137.3	9.5
60°-70°	77.2	5.4
70°-80°	38.2	2.7
80°-90°	10.5	0.7
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°	634.1	44.1
0°-40°	947.9	65.9
0°-60°	1312.9	91.3
0°-90°	1438.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1438.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	890	890	890	890	890	
5°	974	948	882	818	790	95
15°	1070	993	812	638	572	303
25°	1056	951	683	458	378	476
35°	753	781	473	289	222	472
45°	467	478	270	146	92	362
55°	288	262	130	44	40	259
65°	173	139	53	16	24	173
75°	92	64	16	9	13	99
85°	29	16	2	2	2	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	889.5	889.5	889.5	889.5	889.5	889.5	889.5	889.5	889.5
2.5°	929.8	927.3	919.7	904.6	889.5	871.8	857.9	847.8	840.3
5°	974.0	968.9	947.5	916.0	881.9	847.8	817.5	799.9	789.8
7.5°	1008.1	999.2	968.9	924.8	871.8	820.1	773.4	745.6	734.3
10°	1037.1	1021.9	982.8	923.5	854.1	786.0	728.0	695.2	682.6
12.5°	1056.0	1039.6	991.7	922.3	835.2	751.9	683.8	640.9	628.3
15°	1069.9	1049.7	992.9	912.2	812.5	716.6	638.4	587.9	571.5
17.5°	1080.0	1052.2	987.9	900.8	792.3	680.0	591.7	537.5	521.1
20°	1082.5	1052.2	980.3	884.4	762.0	643.4	541.2	487.0	466.8
22.5°	1083.8	1048.4	968.9	864.2	730.5	601.8	499.6	442.8	421.4
25°	1056.0	1035.8	951.3	830.2	682.6	556.4	458.0	396.2	378.5
27.5°	990.4	989.1	931.1	784.7	638.4	507.2	415.1	355.8	339.4
30°	923.5	924.8	904.6	734.3	586.7	460.5	372.2	314.2	296.5
32.5°	841.5	854.1	852.9	677.5	531.2	416.3	330.6	276.3	258.6
35°	753.2	775.9	781.0	613.2	473.1	365.9	288.9	239.7	222.1
37.5°	673.7	696.4	707.8	556.4	418.9	321.7	249.8	206.9	189.2
40°	596.8	615.7	624.5	490.8	365.9	276.3	213.2	172.8	155.2
42.5°	522.3	550.1	547.6	435.3	319.2	239.7	180.4	140.0	122.4
45°	466.8	485.7	478.2	377.2	270.0	201.9	146.4	108.5	92.1
47.5°	411.3	425.2	413.8	328.0	228.4	166.5	118.6	79.5	61.8
50°	365.9	372.2	357.0	278.8	190.5	136.3	89.6	53.0	50.5
52.5°	323.0	326.8	305.3	237.2	157.7	109.8	65.6	41.6	44.2
55°	287.7	286.4	262.4	200.6	129.9	84.5	44.2	37.8	40.4
57.5°	253.6	249.8	225.8	166.5	106.0	65.6	26.5	32.8	35.3
60°	223.3	219.5	191.8	137.5	84.5	49.2	21.4	29.0	31.5
62.5°	199.3	190.5	162.8	113.5	68.1	35.3	18.9	25.2	27.8
65°	172.8	165.3	138.8	92.1	53.0	25.2	16.4	21.4	24.0
67.5°	151.4	142.6	117.3	75.7	42.9	17.7	15.1	18.9	21.4
70°	129.9	122.4	97.1	60.6	31.5	11.4	12.6	16.4	18.9
72.5°	112.3	103.5	80.7	47.9	24.0	8.8	11.4	13.9	15.1
75°	92.1	84.5	64.3	36.6	16.4	7.6	8.8	11.4	12.6
77.5°	77.0	69.4	50.5	27.8	11.4	6.3	7.6	10.1	10.1
80°	59.3	53.0	37.8	18.9	7.6	3.8	6.3	7.6	7.6
82.5°	42.9	37.8	26.5	12.6	3.8	3.8	3.8	5.0	5.0
85°	29.0	25.2	16.4	7.6	2.5	2.5	2.5	2.5	2.5
87.5°	16.4	12.6	7.6	2.5	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	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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