

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: P838509

Luminaire Tested: HCSQ630D010-HM63040840-61SQC

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838509
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ630D010-HM63040840-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

Summary

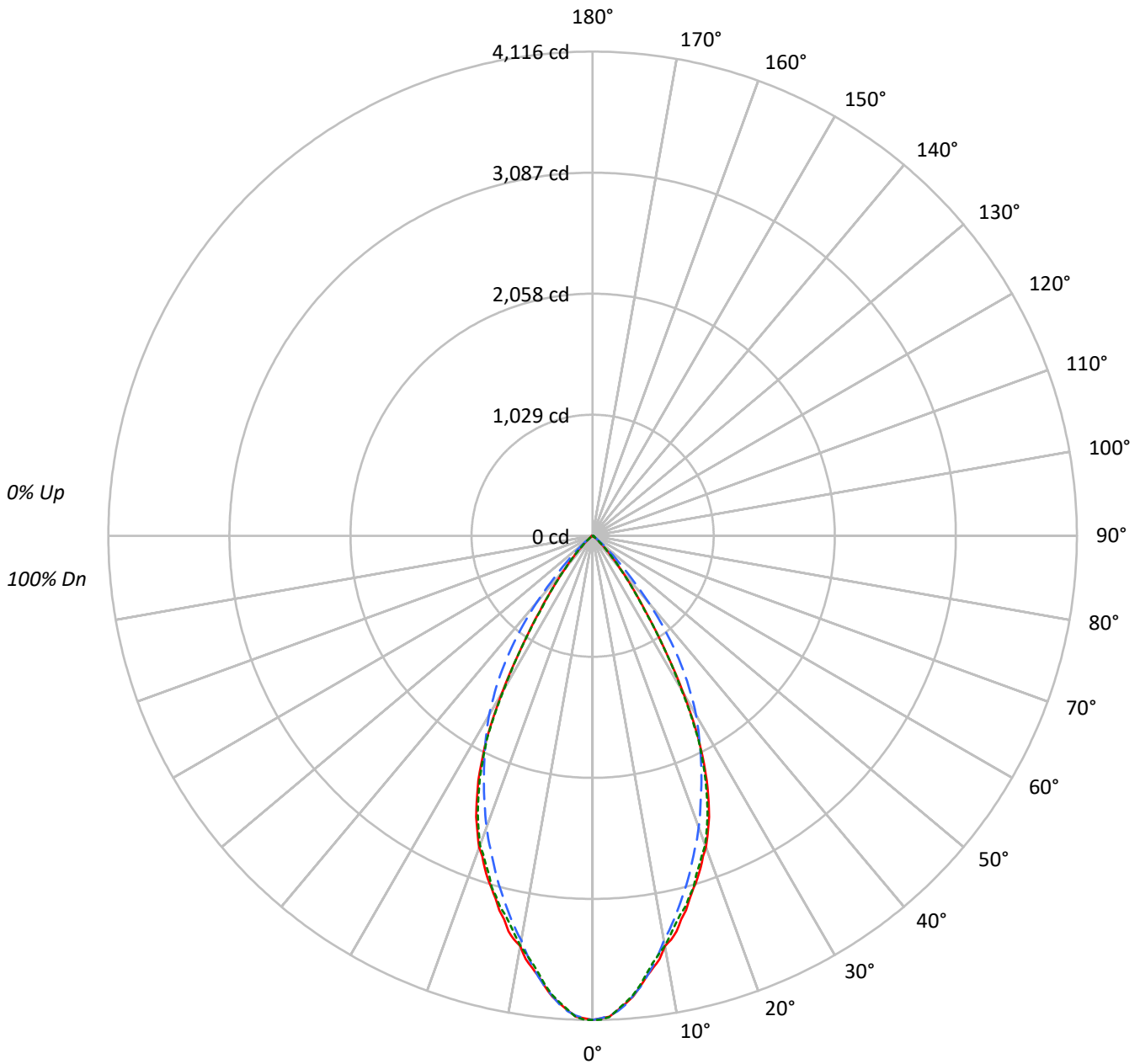
Lumens per Lamp: N/A
Luminaire Lumens: 3082.9 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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									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				100															
1	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94				94															
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87				87															
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81				81															
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76				76															
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71				71															
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66				66															
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62				62															
8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59				59															
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55				55															
10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52				52															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	177213	177213	177213
5°	169989	169691	169453
10°	154825	152718	154703
15°	142286	137076	141426
20°	129127	120811	128242
25°	109128	103840	107626
30°	76409	87416	75112
35°	41040	67052	40246
40°	20318	41491	20166
45°	8872	17494	8707
50°	2853	6357	2853
55°	1441	2064	1344
60°	947	947	947
65°	703	703	703
70°	516	516	516
75°	449	449	449
80°	347	347	347
85°	692	692	692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17494 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	361.4	11.7
10°-20°	872.8	28.3
20°-30°	1008.2	32.7
30°-40°	629.6	20.4
40°-50°	174.9	5.7
50°-60°	24.5	0.8
60°-70°	7.2	0.2
70°-80°	3.0	0.1
80°-90°	1.3	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°	2242.3	72.7
0°-40°	2871.9	93.2
0°-60°	3071.3	99.6
0°-90°	3082.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3082.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4116	4116	4116	4116	4116	
5°	3933	3922	3926	3921	3921	362
15°	3192	3132	3075	3123	3173	894
25°	2297	2230	2186	2228	2266	1026
35°	781	964	1276	953	766	519
45°	146	186	287	184	143	126
55°	19	19	28	19	18	19
65°	7	7	7	7	7	7
75°	3	3	3	3	3	3
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4115.9	4115.9	4115.9	4115.9	4115.9
1°	4103.5	4103.5	4103.5	4114.5	4114.5
2°	4091.1	4088.4	4081.5	4089.8	4093.9
3°	4040.3	4045.8	4048.5	4044.4	4034.8
4°	3988.0	3982.5	3997.7	3988.0	3979.8
5°	3933.1	3922.1	3926.2	3920.7	3920.7
6°	3856.1	3869.8	3858.8	3849.2	3843.7
7°	3772.2	3783.2	3776.3	3762.6	3753.0
8°	3706.2	3699.4	3688.4	3685.6	3669.1
9°	3643.0	3618.2	3593.5	3597.6	3601.8
10°	3541.3	3544.0	3493.1	3531.6	3538.5
11°	3498.6	3483.5	3416.2	3447.8	3458.8
12°	3436.8	3388.7	3330.9	3357.1	3377.7
13°	3347.4	3297.9	3245.7	3285.6	3306.2
14°	3280.1	3223.7	3157.7	3208.6	3251.2
15°	3192.1	3131.6	3075.2	3123.4	3172.8
16°	3115.1	3045.0	2988.6	3035.4	3109.6
17°	3047.7	2961.1	2892.4	2941.9	3013.4
18°	2969.4	2869.0	2805.8	2858.0	2939.1
19°	2882.8	2781.0	2724.7	2767.3	2860.8
20°	2818.2	2704.1	2636.7	2677.9	2798.9
22.5°	2587.2	2467.6	2405.7	2455.2	2551.5
25°	2297.1	2229.8	2185.8	2228.4	2265.5
27.5°	1953.5	1953.5	1968.6	1950.7	1939.7
30°	1536.9	1648.3	1758.3	1642.8	1510.8
32.5°	1121.8	1300.5	1521.8	1323.8	1120.4
35°	780.8	963.7	1275.7	952.7	765.7
37.5°	543.0	664.0	1006.3	670.9	536.1
40°	361.5	445.4	738.2	453.7	358.8
42.5°	236.5	294.2	477.0	295.6	231.0
45°	145.7	185.6	287.3	184.2	143.0
47.5°	85.2	110.0	167.7	111.4	83.9
50°	42.6	64.6	94.9	63.2	42.6
52.5°	24.7	34.4	52.2	33.0	24.7
55°	19.2	19.2	27.5	19.2	17.9
57.5°	15.1	15.1	15.1	15.1	13.7
60°	11.0	12.4	11.0	11.0	11.0
62.5°	9.6	9.6	8.2	9.6	8.2
65°	6.9	6.9	6.9	6.9	6.9
67.5°	5.5	5.5	5.5	5.5	5.5
70°	4.1	4.1	4.1	4.1	4.1
72.5°	2.7	4.1	2.7	4.1	4.1
75°	2.7	2.7	2.7	2.7	2.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.4	1.4	1.4	1.4	1.4
85°	1.4	1.4	1.4	1.4	1.4
87.5°	1.4	1.4	1.4	1.4	1.4
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°	2.7	2.7	2.7	2.7	1.4
80°	1.4	1.4	1.4	1.4	1.4

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(END OF REPORT)