

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: P838705

Luminaire Tested: HCSQ655D010-HM64560835-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838705
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ655D010-HM64560835-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

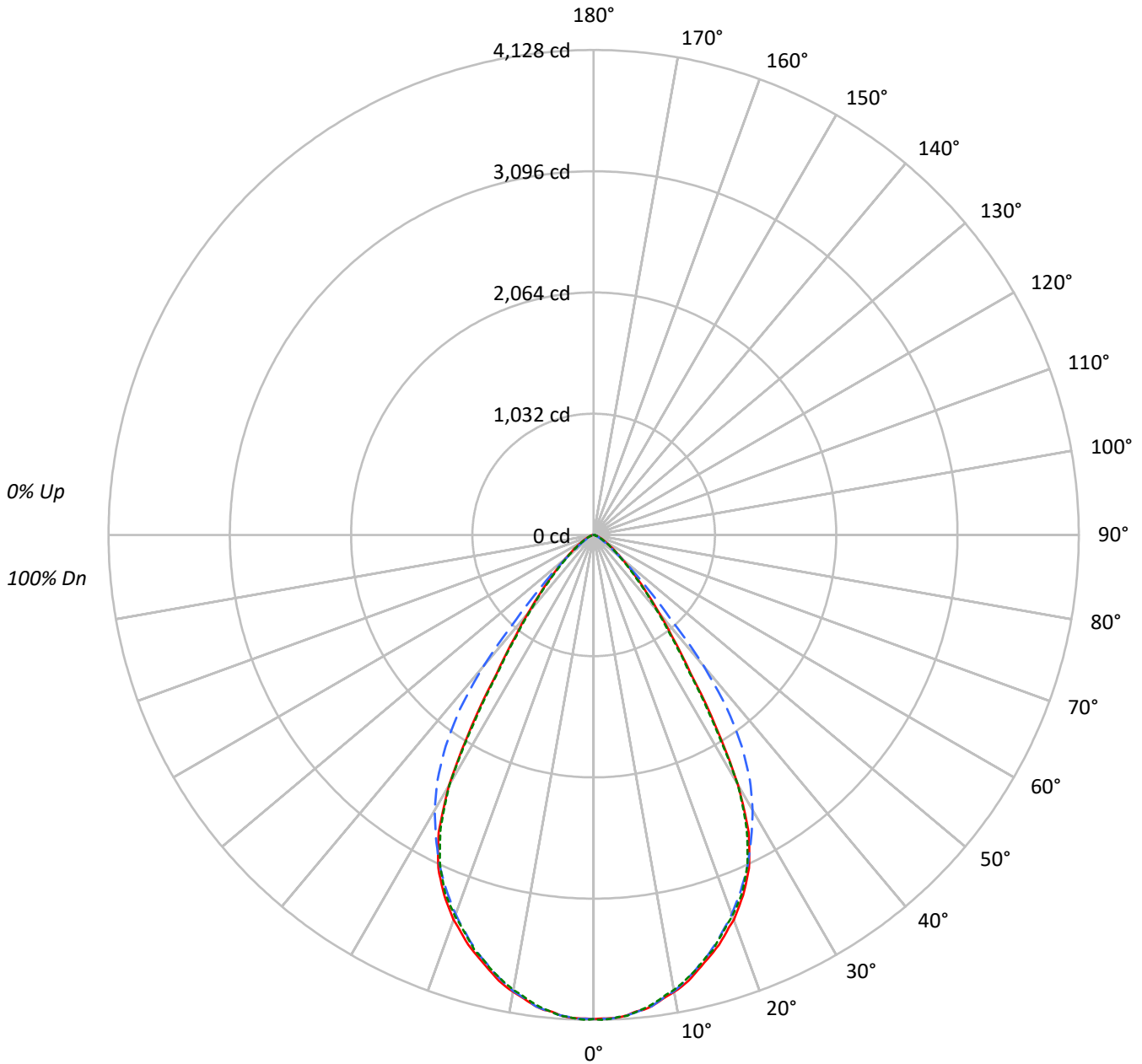
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4635.3 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 54
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																			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92																			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85																			
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78																			
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71																			
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66																			
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61																			
7	80	70	63	59	78	69	63	59	68	62	58	67	62	58	65	61	58	56																			
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52																			
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48																			
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	177450	177450	177450
5°	176053	176347	176247
10°	172689	172291	171889
15°	166588	165674	165572
20°	159720	157415	158148
25°	148663	147361	147033
30°	122168	134438	121825
35°	75452	115461	73649
40°	48438	81840	46763
45°	31596	39670	30061
50°	20979	19753	19599
55°	14240	10299	13211
60°	9644	6295	8861
65°	6755	4656	6052
70°	4318	3449	4028
75°	3044	2662	2662
80°	2256	1711	1711
85°	1136	2272	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 39670 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	384.9	8.3
10°-20°	1044.7	22.5
20°-30°	1410.2	30.4
30°-40°	1100.6	23.7
40°-50°	461.1	9.9
50°-60°	156.3	3.4
60°-70°	55.7	1.2
70°-80°	18.1	0.4
80°-90°	3.7	0.1
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°	2839.8	61.3
0°-40°	3940.3	85.0
0°-60°	4557.7	98.3
0°-90°	4635.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4635.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4121	4121	4121	4121	4121	
5°	4073	4078	4080	4073	4078	385
15°	3737	3728	3717	3712	3714	1051
25°	3129	3116	3102	3102	3095	1408
35°	1436	1685	2197	1682	1401	944
45°	519	556	652	530	494	416
55°	190	174	137	165	176	175
65°	66	55	46	53	59	68
75°	18	16	16	16	16	20
85°	2	2	5	2	2	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4121.4	4121.4	4121.4	4121.4	4121.4
1°	4116.8	4123.7	4119.1	4121.4	4128.2
2°	4116.8	4116.8	4121.4	4119.1	4121.4
3°	4112.2	4112.2	4107.7	4107.7	4107.7
4°	4098.5	4098.5	4098.5	4093.9	4103.1
5°	4073.4	4077.9	4080.2	4073.4	4077.9
6°	4064.2	4066.5	4061.9	4059.7	4055.1
7°	4043.7	4036.8	4043.7	4027.6	4029.9
8°	4009.4	4009.4	4004.8	4000.2	3995.6
9°	3977.4	3977.4	3972.8	3965.9	3961.4
10°	3949.9	3943.1	3940.8	3933.9	3931.6
11°	3917.9	3904.2	3901.9	3895.1	3895.1
12°	3879.1	3872.2	3856.2	3853.9	3853.9
13°	3831.1	3824.2	3812.8	3803.6	3812.8
14°	3785.4	3780.8	3760.2	3767.1	3764.8
15°	3737.3	3728.2	3716.8	3712.2	3714.5
16°	3693.9	3677.9	3661.9	3664.2	3677.9
17°	3648.2	3625.3	3609.3	3607.1	3613.9
18°	3591.1	3572.8	3547.6	3556.8	3556.8
19°	3533.9	3508.8	3492.8	3490.5	3499.6
20°	3485.9	3447.0	3435.6	3433.3	3451.6
22.5°	3321.3	3282.5	3273.3	3282.5	3300.8
25°	3129.3	3115.6	3101.9	3101.9	3095.0
27.5°	2857.3	2889.3	2905.3	2873.3	2820.7
30°	2457.3	2592.1	2704.1	2576.1	2450.4
32.5°	1936.1	2215.0	2473.3	2208.1	1890.4
35°	1435.5	1684.7	2196.7	1682.4	1401.2
37.5°	1106.3	1266.4	1867.5	1245.8	1074.3
40°	861.8	955.5	1456.1	944.1	832.0
42.5°	669.8	729.2	969.2	715.5	646.9
45°	518.9	555.5	651.5	530.3	493.7
47.5°	404.6	420.6	445.7	402.3	381.7
50°	313.2	313.2	294.9	301.7	292.6
52.5°	242.3	233.2	198.9	219.4	224.0
55°	189.7	173.7	137.2	164.6	176.0
57.5°	144.0	128.0	98.3	121.1	132.6
60°	112.0	96.0	73.1	91.4	102.9
62.5°	86.9	73.1	57.1	68.6	77.7
65°	66.3	54.9	45.7	52.6	59.4
67.5°	50.3	41.1	34.3	38.9	45.7
70°	34.3	32.0	27.4	29.7	32.0
72.5°	25.1	22.9	20.6	20.6	22.9
75°	18.3	16.0	16.0	16.0	16.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	4.6	4.6	4.6	4.6	4.6
85°	2.3	2.3	4.6	2.3	2.3
87.5°	2.3	2.3	2.3	2.3	2.3
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°	11.4	11.4	11.4	11.4	11.4
80°	9.1	9.1	6.9	6.9	6.9

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(END OF REPORT)