

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: P838335

Luminaire Tested: HCSQ610D010-HM60525827-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838335
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: HCSQ610D010-HM60525827-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

Summary

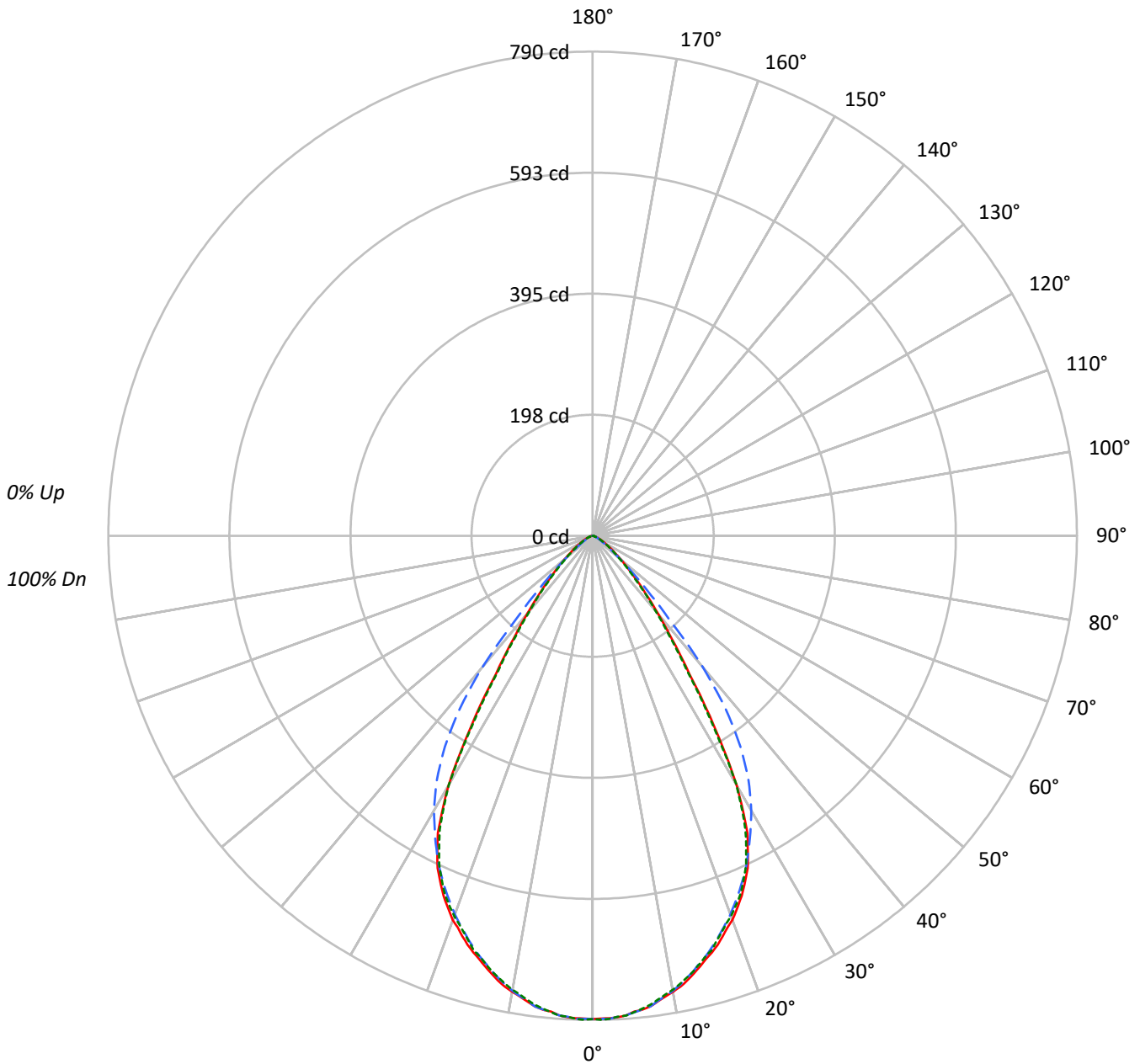
Lumens per Lamp: N/A
Luminaire Lumens: 886.9 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 9.9
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					100			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92					92			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85					85			
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78					78			
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71					71			
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66					66			
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61					61			
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56					56			
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52					52			
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48					48			
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45					45			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33949	33949	33949
5°	33686	33742	33720
10°	33039	32965	32886
15°	31875	31697	31679
20°	30561	30117	30259
25°	28442	28195	28133
30°	23377	25723	23307
35°	14439	22091	14092
40°	9268	15659	8948
45°	6046	7587	5754
50°	4012	3778	3751
55°	2725	1967	2530
60°	1843	1206	1696
65°	1294	886	1161
70°	831	655	768
75°	582	516	516
80°	422	322	322
85°	198	445	198

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 7587 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.6	8.3
10°-20°	199.9	22.5
20°-30°	269.8	30.4
30°-40°	210.6	23.7
40°-50°	88.2	9.9
50°-60°	29.9	3.4
60°-70°	10.7	1.2
70°-80°	3.5	0.4
80°-90°	0.7	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°	543.3	61.3
0°-40°	753.9	85.0
0°-60°	872.0	98.3
0°-90°	886.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	886.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	779	780	781	779	780	74
15°	715	713	711	710	711	201
25°	599	596	594	594	592	269
35°	275	322	420	322	268	181
45°	99	106	125	102	94	80
55°	36	33	26	32	34	34
65°	13	10	9	10	11	13
75°	4	3	3	3	3	4
85°	0	0	1	0	0	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	788.5	788.5	788.5	788.5	788.5
1°	787.7	789.0	788.1	788.5	789.9
2°	787.7	787.7	788.5	788.1	788.5
3°	786.8	786.8	785.9	785.9	785.9
4°	784.2	784.2	784.2	783.3	785.0
5°	779.4	780.2	780.7	779.4	780.2
6°	777.6	778.0	777.2	776.7	775.9
7°	773.7	772.4	773.7	770.6	771.1
8°	767.1	767.1	766.2	765.4	764.5
9°	761.0	761.0	760.1	758.8	757.9
10°	755.7	754.4	754.0	752.7	752.2
11°	749.6	747.0	746.6	745.2	745.2
12°	742.2	740.9	737.8	737.4	737.4
13°	733.0	731.7	729.5	727.8	729.5
14°	724.3	723.4	719.4	720.8	720.3
15°	715.1	713.3	711.1	710.3	710.7
16°	706.8	703.7	700.6	701.1	703.7
17°	698.0	693.6	690.6	690.1	691.5
18°	687.1	683.6	678.8	680.5	680.5
19°	676.1	671.3	668.3	667.8	669.6
20°	667.0	659.5	657.3	656.9	660.4
22.5°	635.5	628.0	626.3	628.0	631.5
25°	598.7	596.1	593.5	593.5	592.2
27.5°	546.7	552.8	555.9	549.8	539.7
30°	470.2	496.0	517.4	492.9	468.8
32.5°	370.4	423.8	473.2	422.5	361.7
35°	274.7	322.3	420.3	321.9	268.1
37.5°	211.7	242.3	357.3	238.4	205.6
40°	164.9	182.8	278.6	180.6	159.2
42.5°	128.1	139.5	185.4	136.9	123.8
45°	99.3	106.3	124.6	101.5	94.5
47.5°	77.4	80.5	85.3	77.0	73.0
50°	59.9	59.9	56.4	57.7	56.0
52.5°	46.4	44.6	38.0	42.0	42.9
55°	36.3	33.2	26.2	31.5	33.7
57.5°	27.6	24.5	18.8	23.2	25.4
60°	21.4	18.4	14.0	17.5	19.7
62.5°	16.6	14.0	10.9	13.1	14.9
65°	12.7	10.5	8.7	10.1	11.4
67.5°	9.6	7.9	6.6	7.4	8.7
70°	6.6	6.1	5.2	5.7	6.1
72.5°	4.8	4.4	3.9	3.9	4.4
75°	3.5	3.1	3.1	3.1	3.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.9	0.9	0.9	0.9	0.9
85°	0.4	0.4	0.9	0.4	0.4
87.5°	0.4	0.4	0.4	0.4	0.4
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°	2.2	2.2	2.2	2.2	2.2
80°	1.7	1.7	1.3	1.3	1.3

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Scaled Data Report



(END OF REPORT)