

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: P838370

Luminaire Tested: HCSQ610D010-HM60525940-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838370
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-HM60525940-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

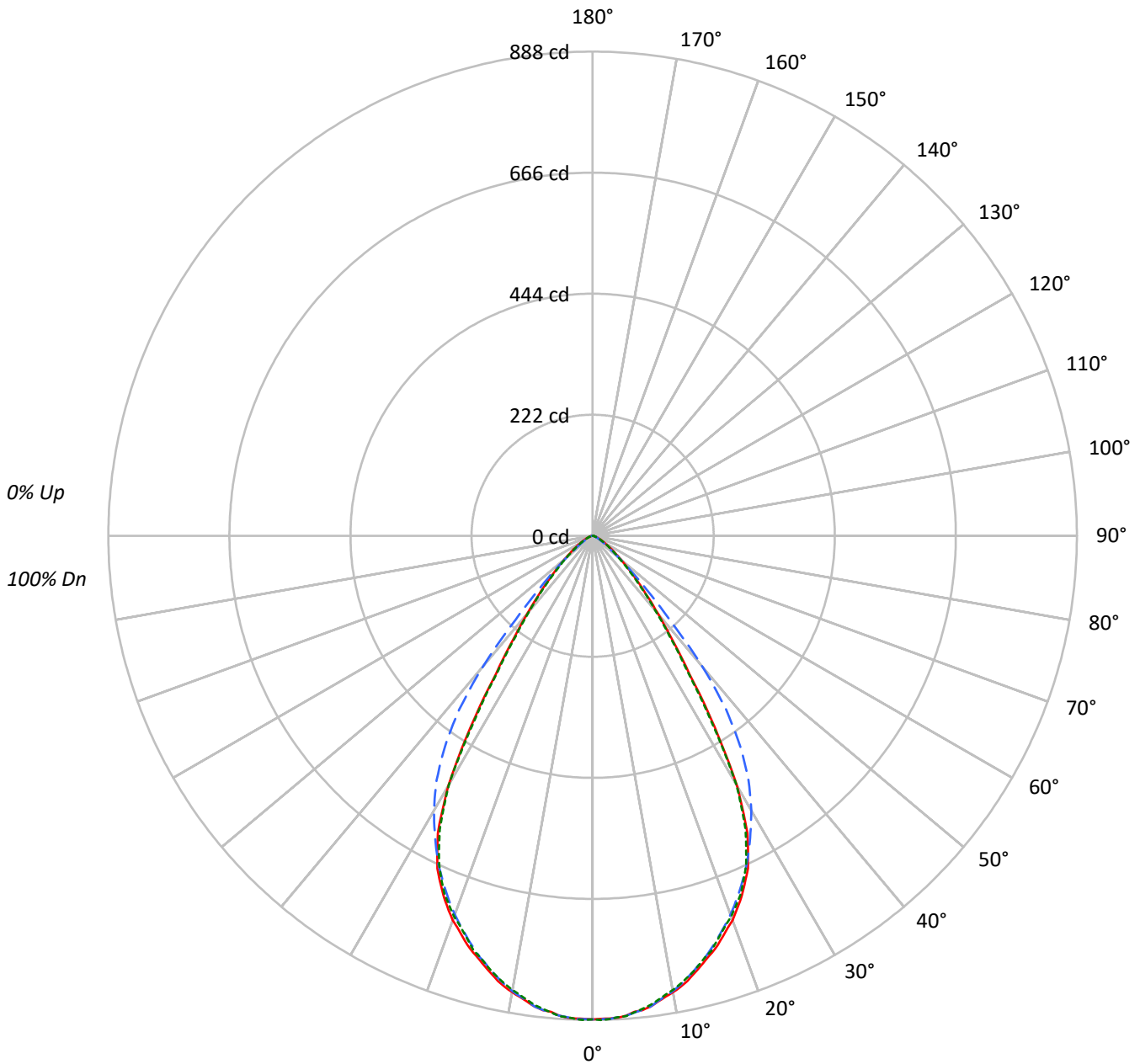
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 997.6 lumens
Efficiency: N/A
Efficacy: 100.8 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): 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	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°	38190	38190	38190
5°	37887	37952	37930
10°	37166	37079	36991
15°	35851	35655	35633
20°	34373	33878	34034
25°	31996	31715	31644
30°	26290	28935	26220
35°	16236	24846	15852
40°	10426	17615	10066
45°	6801	8537	6473
50°	4515	4253	4220
55°	3063	2214	2845
60°	2075	1352	1903
65°	1457	998	1304
70°	932	743	869
75°	649	566	566
80°	496	372	372
85°	247	494	247

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 8537 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.8	8.3
10°-20°	224.8	22.5
20°-30°	303.5	30.4
30°-40°	236.9	23.7
40°-50°	99.2	9.9
50°-60°	33.6	3.4
60°-70°	12.0	1.2
70°-80°	3.9	0.4
80°-90°	0.8	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°	611.1	61.3
0°-40°	848.0	85.0
0°-60°	980.9	98.3
0°-90°	997.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	997.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	887	887	887	887	887	
5°	877	878	878	877	878	83
15°	804	802	800	799	799	226
25°	674	670	668	668	666	303
35°	309	363	473	362	302	203
45°	112	120	140	114	106	90
55°	41	37	30	35	38	38
65°	14	12	10	11	13	15
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°	887.0	887.0	887.0	887.0	<i>887.0</i>
1°	<i>886.0</i>	<i>887.4</i>	<i>886.5</i>	<i>887.0</i>	<i>888.4</i>
2°	886.0	886.0	887.0	886.5	<i>887.0</i>
3°	885.0	885.0	884.0	884.0	<i>884.0</i>
4°	882.0	882.0	882.0	881.1	<i>883.0</i>
5°	876.6	877.6	878.1	876.6	<i>877.6</i>
6°	874.7	875.2	874.2	873.7	<i>872.7</i>
7°	870.2	868.8	870.2	866.8	<i>867.3</i>
8°	862.9	862.9	861.9	860.9	<i>859.9</i>
9°	856.0	856.0	855.0	853.5	<i>852.5</i>
10°	850.1	848.6	848.1	846.6	<i>846.1</i>
11°	843.2	840.2	839.7	838.3	<i>838.3</i>
12°	834.8	833.3	829.9	829.4	<i>829.4</i>
13°	824.5	823.0	820.5	818.6	<i>820.5</i>
14°	814.6	813.7	809.2	810.7	<i>810.2</i>
15°	804.3	802.3	799.9	798.9	<i>799.4</i>
16°	795.0	791.5	788.1	788.6	<i>791.5</i>
17°	785.1	780.2	776.8	776.3	<i>777.7</i>
18°	772.8	768.9	763.5	765.4	<i>765.4</i>
19°	760.5	755.1	751.7	751.2	<i>753.2</i>
20°	750.2	741.8	739.4	738.9	<i>742.8</i>
22.5°	714.8	706.4	704.4	706.4	<i>710.4</i>
25°	673.5	670.5	667.6	667.6	<i>666.1</i>
27.5°	614.9	621.8	625.2	618.4	<i>607.0</i>
30°	528.8	557.9	582.0	554.4	<i>527.4</i>
32.5°	416.7	476.7	532.3	475.2	<i>406.8</i>
35°	308.9	362.6	472.7	362.1	<i>301.6</i>
37.5°	238.1	272.5	401.9	268.1	<i>231.2</i>
40°	185.5	205.6	313.4	203.2	<i>179.1</i>
42.5°	144.1	156.9	208.6	154.0	<i>139.2</i>
45°	111.7	119.5	140.2	114.1	<i>106.3</i>
47.5°	87.1	90.5	95.9	86.6	<i>82.2</i>
50°	67.4	67.4	63.5	64.9	<i>63.0</i>
52.5°	52.1	50.2	42.8	47.2	<i>48.2</i>
55°	40.8	37.4	29.5	35.4	<i>37.9</i>
57.5°	31.0	27.5	21.2	26.1	<i>28.5</i>
60°	24.1	20.7	15.7	19.7	<i>22.1</i>
62.5°	18.7	15.7	12.3	14.8	<i>16.7</i>
65°	14.3	11.8	9.8	11.3	<i>12.8</i>
67.5°	10.8	8.9	7.4	8.4	<i>9.8</i>
70°	7.4	6.9	5.9	6.4	<i>6.9</i>
72.5°	5.4	4.9	4.4	4.4	<i>4.9</i>
75°	3.9	3.4	3.4	3.4	<i>3.4</i>



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.0	1.0	1.0	1.0	1.0
85°	0.5	0.5	1.0	0.5	0.5
87.5°	0.5	0.5	0.5	0.5	0.5
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°	2.5	2.5	2.5	2.5	2.5
80°	2.0	2.0	1.5	1.5	1.5

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