

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: P838585

Luminaire Tested: HCSQ640D010-HM63040835-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838585
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: HCSQ640D010-HM63040835-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

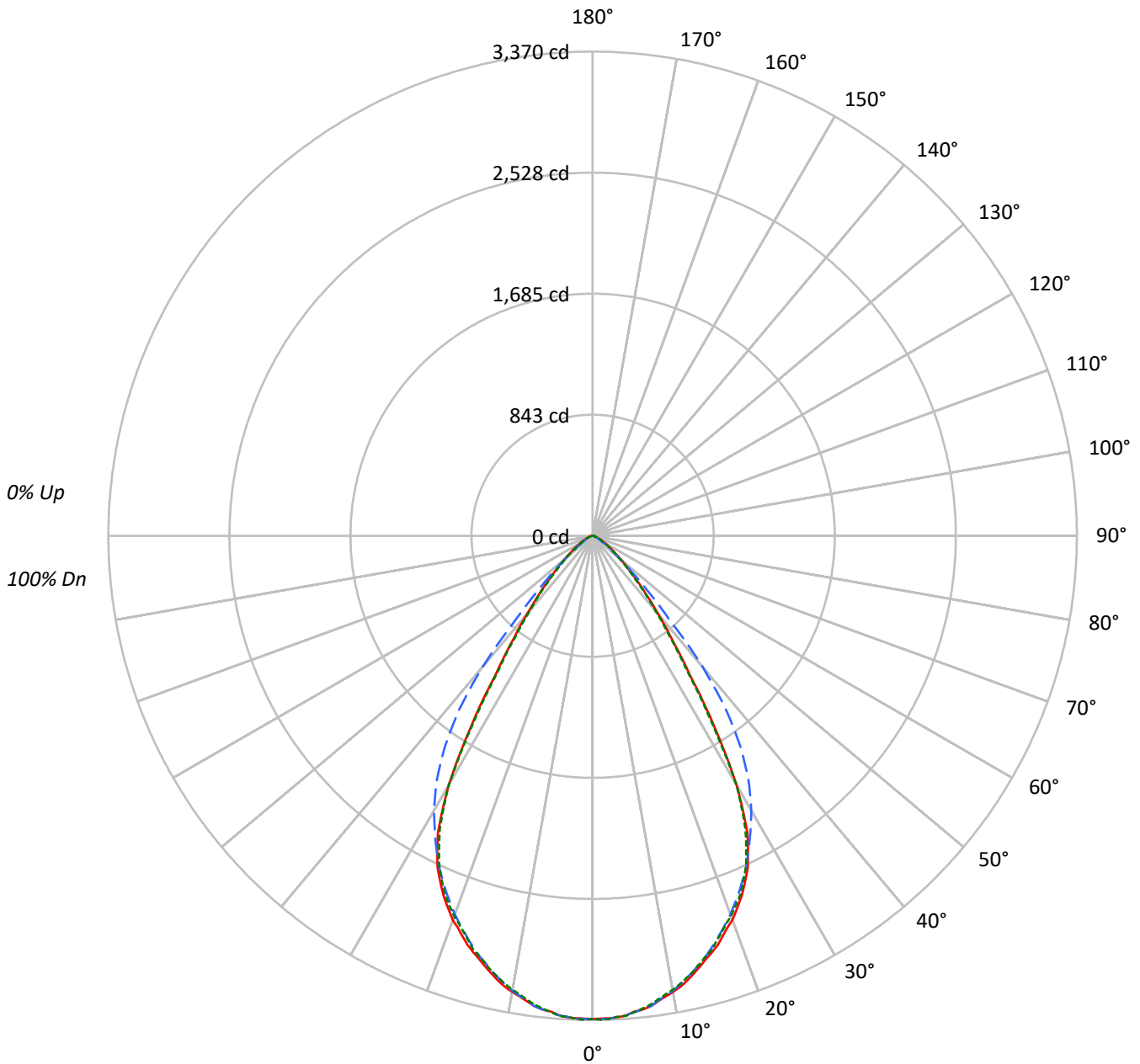
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3783.3 lumens
Efficiency: N/A
Efficacy: 92.3 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): 41
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	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	78	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°	144835	144835	144835
5°	143694	143936	143854
10°	140948	140625	140297
15°	135970	135221	135141
20°	130364	128485	129081
25°	121337	120277	120011
30°	99711	109729	99433
35°	61586	94237	60114
40°	39535	66800	38169
45°	25787	32375	24539
50°	17121	16123	15995
55°	11628	8400	10787
60°	7871	5141	7233
65°	5512	3800	4941
70°	3525	2820	3286
75°	2479	2179	2179
80°	1860	1389	1389
85°	939	1828	939

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 32375 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	314.2	8.3
10°-20°	852.6	22.5
20°-30°	1151.0	30.4
30°-40°	898.3	23.7
40°-50°	376.3	9.9
50°-60°	127.6	3.4
60°-70°	45.5	1.2
70°-80°	14.8	0.4
80°-90°	3.0	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°	2317.8	61.3
0°-40°	3216.1	85.0
0°-60°	3720.0	98.3
0°-90°	3783.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3783.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3364	3364	3364	3364	3364	
5°	3325	3328	3330	3325	3328	314
15°	3050	3043	3034	3030	3032	858
25°	2554	2543	2532	2532	2526	1149
35°	1172	1375	1793	1373	1144	771
45°	424	453	532	433	403	340
55°	155	142	112	134	144	143
65°	54	45	37	43	48	56
75°	15	13	13	13	13	16
85°	2	2	4	2	2	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3363.9	3363.9	3363.9	3363.9	<i>3363.9</i>
1°	<i>3360.1</i>	<i>3365.7</i>	<i>3362.0</i>	<i>3363.9</i>	<i>3369.5</i>
2°	3360.1	3360.1	3363.9	3362.0	<i>3363.9</i>
3°	3356.4	3356.4	3352.7	3352.7	<i>3352.7</i>
4°	3345.2	3345.2	3345.2	3341.5	<i>3348.9</i>
5°	3324.7	3328.4	3330.3	3324.7	<i>3328.4</i>
6°	3317.2	3319.1	3315.4	3313.5	<i>3309.8</i>
7°	3300.4	3294.8	3300.4	3287.4	<i>3289.2</i>
8°	3272.4	3272.4	3268.7	3265.0	<i>3261.3</i>
9°	3246.3	3246.3	3242.6	3237.0	<i>3233.3</i>
10°	3223.9	3218.3	3216.5	3210.9	<i>3209.0</i>
11°	3197.8	3186.6	3184.8	3179.2	<i>3179.2</i>
12°	3166.1	3160.5	3147.4	3145.6	<i>3145.6</i>
13°	3126.9	3121.3	3112.0	3104.5	<i>3112.0</i>
14°	3089.6	3085.9	3069.1	3074.7	<i>3072.8</i>
15°	3050.4	3043.0	3033.6	3029.9	<i>3031.8</i>
16°	3015.0	3001.9	2988.9	2990.7	<i>3001.9</i>
17°	2977.7	2959.0	2945.9	2944.1	<i>2949.7</i>
18°	2931.0	2916.1	2895.6	2903.0	<i>2903.0</i>
19°	2884.4	2863.9	2850.8	2848.9	<i>2856.4</i>
20°	2845.2	2813.5	2804.2	2802.3	<i>2817.2</i>
22.5°	2710.9	2679.2	2671.7	2679.2	<i>2694.1</i>
25°	2554.1	2543.0	2531.8	2531.8	<i>2526.2</i>
27.5°	2332.1	2358.2	2371.3	2345.2	<i>2302.3</i>
30°	2005.6	2115.7	2207.1	2102.6	<i>2000.0</i>
32.5°	1580.3	1807.9	2018.7	1802.3	<i>1542.9</i>
35°	1171.7	1375.0	1792.9	1373.2	<i>1143.7</i>
37.5°	903.0	1033.6	1524.3	1016.8	<i>876.9</i>
40°	703.4	779.9	1188.5	770.5	<i>679.1</i>
42.5°	546.7	595.2	791.1	584.0	<i>528.0</i>
45°	423.5	453.4	531.7	432.8	<i>403.0</i>
47.5°	330.2	343.3	363.8	328.4	<i>311.6</i>
50°	255.6	255.6	240.7	246.3	<i>238.8</i>
52.5°	197.8	190.3	162.3	179.1	<i>182.8</i>
55°	154.9	141.8	111.9	134.3	<i>143.7</i>
57.5°	117.5	104.5	80.2	98.9	<i>108.2</i>
60°	91.4	78.4	59.7	74.6	<i>84.0</i>
62.5°	70.9	59.7	46.6	56.0	<i>63.4</i>
65°	54.1	44.8	37.3	42.9	<i>48.5</i>
67.5°	41.0	33.6	28.0	31.7	<i>37.3</i>
70°	28.0	26.1	22.4	24.3	<i>26.1</i>
72.5°	20.5	18.7	16.8	16.8	<i>18.7</i>
75°	14.9	13.1	13.1	13.1	<i>13.1</i>



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	3.7	3.7	3.7	3.7	3.7
85°	1.9	1.9	3.7	1.9	1.9
87.5°	1.9	1.9	1.9	1.9	1.9
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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— 0°-180° - - 45°-225° - - - - 90°-270°

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77.5°	9.3	9.3	9.3	9.3	9.3
80°	7.5	7.5	5.6	5.6	5.6

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Scaled Data Report



(END OF REPORT)