

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: P837634

Luminaire Tested: HCSQ455D010-HM44560827-41SQH

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837634
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ455D010-HM44560827-41SQH
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

Summary

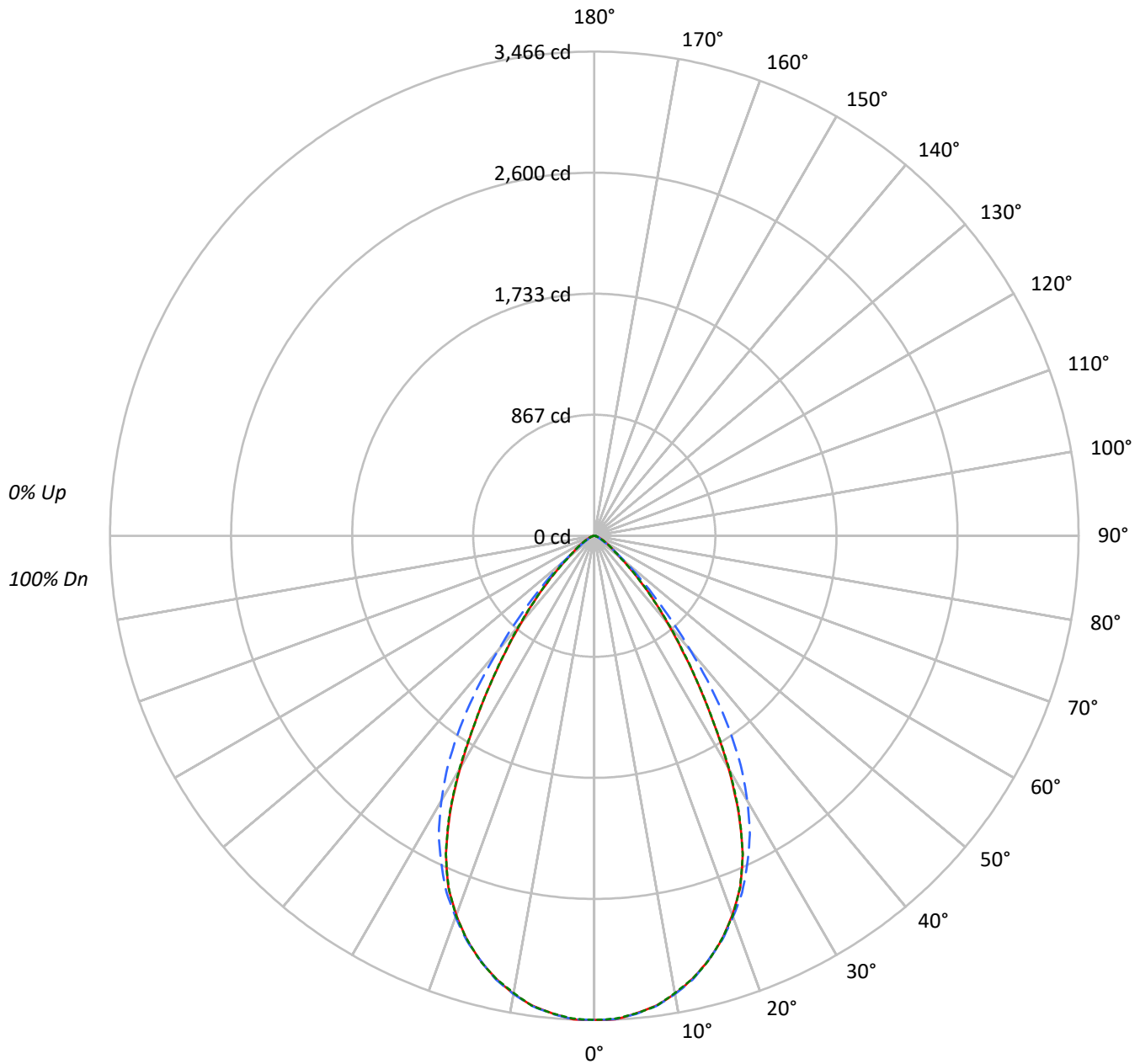
Lumens per Lamp: N/A
Luminaire Lumens: 3896.3 lumens
Efficiency: N/A
Efficacy: 72.2 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.01
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 54
Input Voltage (V): NR
Input Current (Ain): 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					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	113	110	107	105	110	108	105	103		104	102	100			100	98	97			96
2	107	101	97	93	104	100	95	92		96	93	90			93	90	88			90
3	101	93	88	84	98	92	87	83		89	85	82			87	83	80			85
4	95	87	80	76	93	85	80	75		83	78	74			81	77	74			79
5	89	80	74	69	88	79	73	69		77	72	68			76	71	68			74
6	84	75	68	63	83	74	68	63		72	67	63			71	66	62			69
7	80	70	63	59	78	69	63	58		68	62	58			66	61	58			65
8	75	65	59	54	74	65	58	54		63	58	54			62	57	54			61
9	72	61	55	50	70	61	54	50		60	54	50			59	54	50			58
10	68	57	51	47	67	57	51	47		56	51	47			55	50	47			55

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	335780	335780	335780
5°	333737	334145	333737
10°	327483	327690	326854
15°	315852	315632	316063
20°	297742	299288	298402
25°	268658	276899	268658
30°	214574	244989	216252
35°	153174	198244	153434
40°	103421	134834	105052
45°	65706	79777	65994
50°	37422	42591	36141
55°	24591	20605	24220
60°	17011	12032	16585
65°	11782	8825	11782
70°	8497	6656	8497
75°	5614	5614	5614
80°	3570	4798	4798
85°	4780	4780	4780

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 79777 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	324.7	8.3
10°-20°	882.9	22.7
20°-30°	1156.0	29.7
30°-40°	908.6	23.3
40°-50°	424.4	10.9
50°-60°	131.5	3.4
60°-70°	46.9	1.2
70°-80°	16.5	0.4
80°-90°	4.6	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°	2363.7	60.7
0°-40°	3272.3	84.0
0°-60°	3828.2	98.3
0°-90°	3896.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3896.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3466	3466	3466	3466	3466	
5°	3432	3434	3436	3440	3432	325
15°	3149	3149	3147	3149	3151	882
25°	2513	2548	2590	2550	2513	1130
35°	1295	1413	1676	1430	1297	817
45°	480	537	582	527	482	382
55°	146	137	122	135	143	136
65°	51	47	38	45	51	54
75°	15	15	15	15	15	17
85°	4	4	4	4	4	4
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3466.1	3466.1	3466.1	3466.1	3466.1
2.5°	3466.1	3461.8	3464.0	3459.7	3459.7
5°	3431.9	3434.0	3436.1	3440.4	3431.9
7.5°	3393.3	3397.6	3395.5	3395.5	3395.5
10°	3329.1	3331.2	3331.2	3331.2	3322.7
12.5°	3247.7	3252.0	3254.2	3247.7	3247.7
15°	3149.3	3149.3	3147.1	3149.3	3151.4
17.5°	3031.5	3037.9	3037.9	3031.5	3029.4
20°	2888.1	2898.8	2903.1	2894.5	2894.5
22.5°	2727.5	2738.2	2763.9	2742.5	2725.4
25°	2513.4	2547.7	2590.5	2549.8	2513.4
27.5°	2237.2	2312.2	2410.7	2325.0	2243.7
30°	1918.2	2040.3	2190.1	2046.7	1933.2
32.5°	1592.8	1729.8	1950.4	1740.6	1592.8
35°	1295.2	1413.0	1676.3	1430.1	1297.4
37.5°	1029.8	1143.2	1374.5	1156.1	1044.8
40°	817.8	909.9	1066.2	907.7	830.7
42.5°	638.0	704.4	807.1	702.2	635.8
45°	479.6	537.4	582.3	526.7	481.7
47.5°	353.2	391.8	417.5	385.4	344.7
50°	248.3	276.2	282.6	269.8	239.8
52.5°	186.3	186.3	188.4	184.1	182.0
55°	145.6	137.0	122.0	134.9	143.4
57.5°	113.5	104.9	85.6	100.6	111.3
60°	87.8	79.2	62.1	77.1	85.6
62.5°	68.5	59.9	49.2	59.9	66.4
65°	51.4	47.1	38.5	45.0	51.4
67.5°	38.5	34.3	30.0	34.3	38.5
70°	30.0	27.8	23.5	25.7	30.0
72.5°	21.4	19.3	19.3	19.3	21.4
75°	15.0	15.0	15.0	15.0	15.0
77.5°	10.7	10.7	10.7	10.7	10.7
80°	6.4	6.4	8.6	8.6	8.6
82.5°	4.3	4.3	6.4	6.4	6.4
85°	4.3	4.3	4.3	4.3	4.3
87.5°	2.1	2.1	2.1	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0



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Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°







(END OF REPORT)