

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: P837549

Luminaire Tested: HCSQ440D010-HM43040940-41SQH

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837549
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: HCSQ440D010-HM43040940-41SQH
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

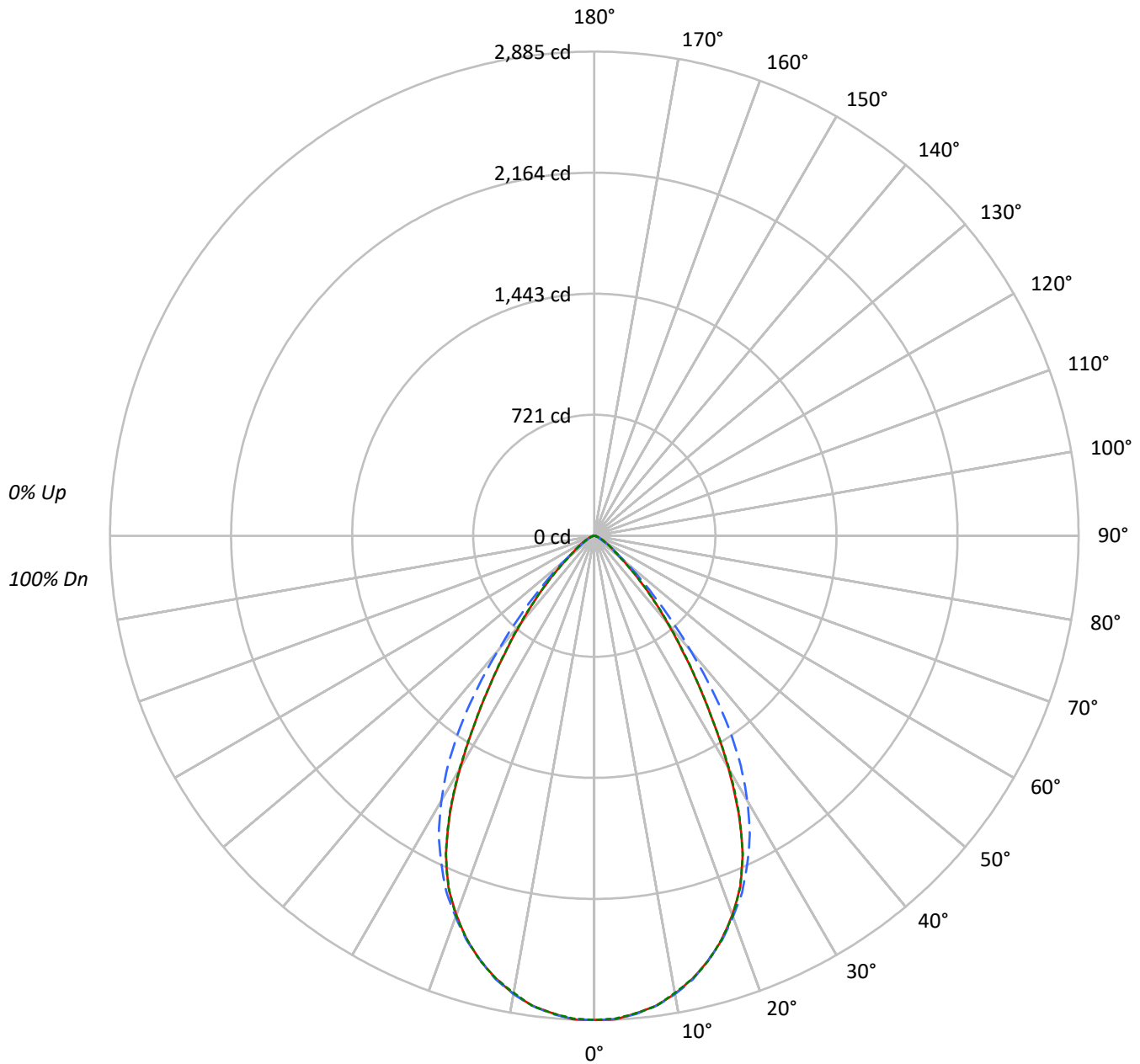
Lumens per Lamp: N/A
Luminaire Lumens: 3242.5 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.01
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 41
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°	279447	279447	279447
5°	277743	278083	277743
10°	272534	272711	272012
15°	262857	262677	263038
20°	247783	249072	248330
25°	223582	230434	223582
30°	178577	203891	179975
35°	127476	164989	127689
40°	86070	112210	87423
45°	54678	66391	54924
50°	31152	35447	30067
55°	20470	17160	20166
60°	14144	10017	13814
65°	9811	7358	9811
70°	7053	5552	7053
75°	4679	4679	4679
80°	2957	3961	3961
85°	4001	4001	4001

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 66391 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.2	8.3
10°-20°	734.8	22.7
20°-30°	962.1	29.7
30°-40°	756.2	23.3
40°-50°	353.2	10.9
50°-60°	109.4	3.4
60°-70°	39.1	1.2
70°-80°	13.7	0.4
80°-90°	3.8	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°	1967.1	60.7
0°-40°	2723.3	84.0
0°-60°	3185.9	98.3
0°-90°	3242.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3242.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2885	2885	2885	2885	2885	
5°	2856	2858	2860	2863	2856	270
15°	2621	2621	2619	2621	2623	734
25°	2092	2120	2156	2122	2092	941
35°	1078	1176	1395	1190	1080	680
45°	399	447	485	438	401	318
55°	121	114	102	112	119	113
65°	43	39	32	37	43	45
75°	12	12	12	12	12	14
85°	4	4	4	4	4	3
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2884.6	2884.6	2884.6	2884.6	2884.6
2.5°	2884.6	2881.0	2882.8	2879.2	2879.2
5°	2856.1	2857.8	2859.6	2863.2	2856.1
7.5°	2824.0	2827.5	2825.8	2825.8	2825.8
10°	2770.5	2772.3	2772.3	2772.3	2765.2
12.5°	2702.8	2706.4	2708.2	2702.8	2702.8
15°	2620.9	2620.9	2619.1	2620.9	2622.7
17.5°	2522.9	2528.2	2528.2	2522.9	2521.1
20°	2403.5	2412.4	2416.0	2408.8	2408.8
22.5°	2269.9	2278.8	2300.2	2282.3	2268.1
25°	2091.7	2120.2	2155.8	2122.0	2091.7
27.5°	1861.9	1924.2	2006.2	1934.9	1867.2
30°	1596.4	1698.0	1822.7	1703.3	1608.9
32.5°	1325.6	1439.6	1623.1	1448.5	1325.6
35°	1077.9	1175.9	1395.1	1190.2	1079.7
37.5°	857.0	951.4	1143.8	962.1	869.5
40°	680.6	757.2	887.3	755.4	691.3
42.5°	530.9	586.2	671.7	584.4	529.2
45°	399.1	447.2	484.6	438.3	400.9
47.5°	294.0	326.0	347.4	320.7	286.9
50°	206.7	229.8	235.2	224.5	199.5
52.5°	155.0	155.0	156.8	153.2	151.4
55°	121.2	114.0	101.6	112.2	119.4
57.5°	94.4	87.3	71.3	83.7	92.6
60°	73.0	65.9	51.7	64.1	71.3
62.5°	57.0	49.9	41.0	49.9	55.2
65°	42.8	39.2	32.1	37.4	42.8
67.5°	32.1	28.5	24.9	28.5	32.1
70°	24.9	23.2	19.6	21.4	24.9
72.5°	17.8	16.0	16.0	16.0	17.8
75°	12.5	12.5	12.5	12.5	12.5
77.5°	8.9	8.9	8.9	8.9	8.9
80°	5.3	5.3	7.1	7.1	7.1
82.5°	3.6	3.6	5.3	5.3	5.3
85°	3.6	3.6	3.6	3.6	3.6
87.5°	1.8	1.8	1.8	3.6	3.6
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-T8S5UU9





— 0°-180° - - 45°-225° - - - 90°-270°







(END OF REPORT)