

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: P837325

Luminaire Tested: HCSQ415D010-HM40525835-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837325
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ415D010-HM40525835-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

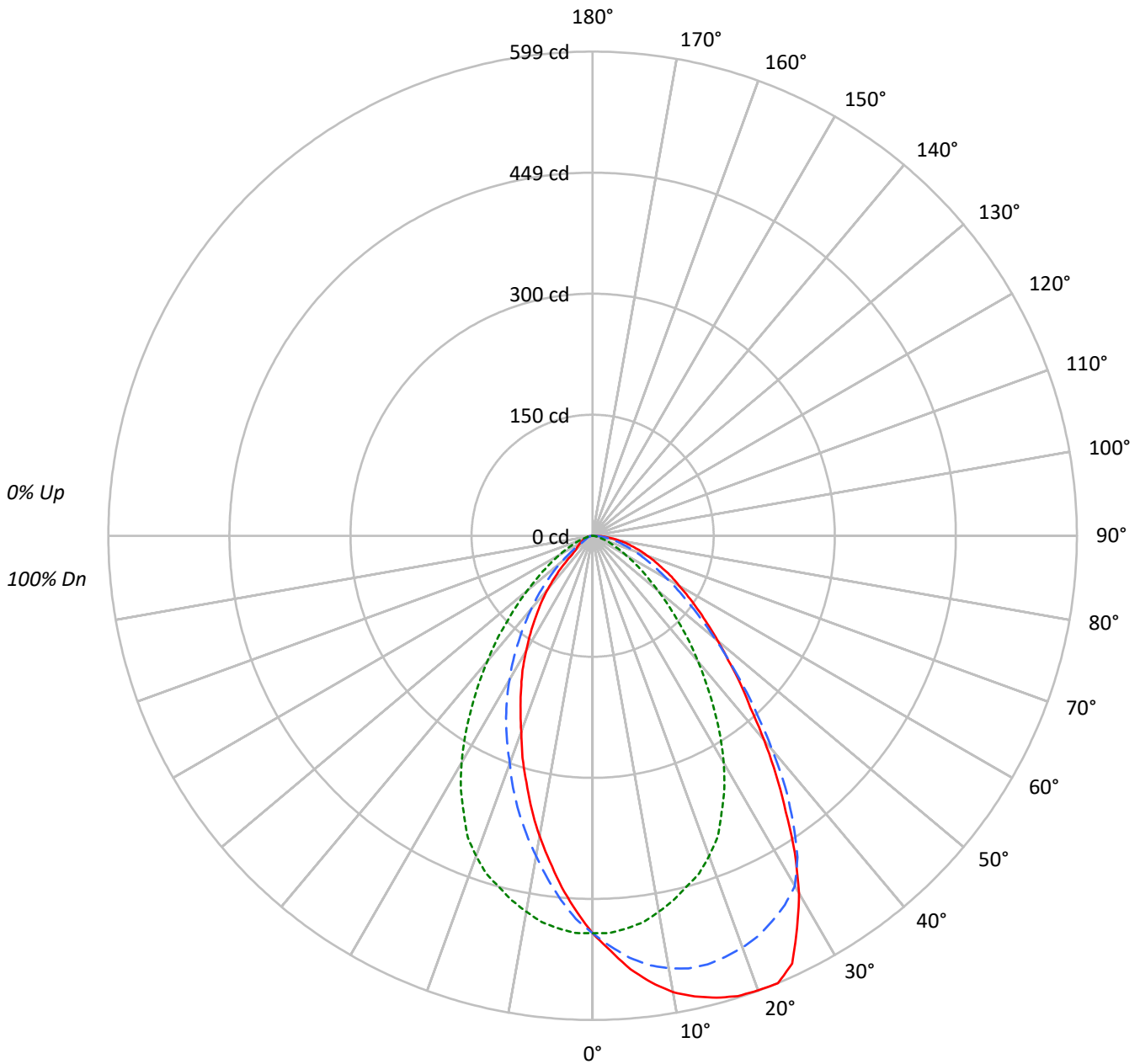
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 795.5 lumens
Efficiency: N/A
Efficacy: 56.8 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 1.04 / 1.12
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 14
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					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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89								
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78								
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69								
4	89	79	72	67	87	78	71	66	76	70	65	74	69	64	72	67	64	62								
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55								
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50								
7	73	61	54	48	71	60	53	48	59	53	48	58	52	48	56	51	47	45								
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42								
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38								
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	47643	47643	47643	47643	47643
5°	52367	50947	47417	43955	42467
10°	56405	53454	46460	39594	37125
15°	59333	55061	45062	35403	31693
20°	61701	55876	43433	30856	26608
25°	62413	56224	40340	27065	22372
30°	57117	55953	36288	23021	18334
35°	49257	51066	30938	18887	14523
40°	41732	43667	25583	14910	10850
45°	35360	36223	20454	11084	6973
50°	30489	29750	15870	7460	4205
55°	26872	24507	12144	4121	3766
60°	23928	20538	9048	2306	3371
65°	21914	17582	6716	2086	3049
70°	20365	15210	4928	1983	2974
75°	19052	13325	3406	1834	2620
80°	18299	11660	2343	1953	2343
85°	17784	10115	1556	1556	1556

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 36799 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.1	5.8
10°-20°	127.0	16.0
20°-30°	177.5	22.3
30°-40°	173.5	21.8
40°-50°	125.9	15.8
50°-60°	75.9	9.5
60°-70°	42.7	5.4
70°-80°	21.1	2.7
80°-90°	5.8	0.7
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°	350.6	44.1
0°-40°	524.1	65.9
0°-60°	725.9	91.3
0°-90°	795.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	795.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	492	492	492	492	492	
5°	538	524	488	452	437	52
15°	592	549	449	353	316	168
25°	584	526	377	253	209	263
35°	416	432	262	160	123	261
45°	258	264	149	81	51	200
55°	159	145	72	24	22	143
65°	96	77	29	9	13	96
75°	51	36	9	5	7	55
85°	16	9	1	1	1	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	491.8	491.8	491.8	491.8	491.8	491.8	491.8	491.8	491.8
2.5°	514.1	512.7	508.5	500.2	491.8	482.0	474.4	468.8	464.6
5°	538.5	535.8	523.9	506.5	487.6	468.8	452.0	442.3	436.7
7.5°	557.4	552.5	535.8	511.3	482.0	453.4	427.6	412.3	406.0
10°	573.4	565.1	543.4	510.6	472.3	434.6	402.5	384.4	377.4
12.5°	583.9	574.8	548.3	509.9	461.8	415.8	378.1	354.4	347.4
15°	591.6	580.4	549.0	504.4	449.3	396.2	353.0	325.1	316.0
17.5°	597.1	581.8	546.2	498.1	438.1	376.0	327.2	297.2	288.1
20°	598.5	581.8	542.0	489.0	421.3	355.8	299.3	269.3	258.1
22.5°	599.2	579.7	535.8	477.9	403.9	332.8	276.2	244.9	233.0
25°	583.9	572.7	526.0	459.0	377.4	307.6	253.2	219.0	209.3
27.5°	547.6	546.9	514.8	433.9	353.0	280.4	229.5	196.7	187.7
30°	510.6	511.3	500.2	406.0	324.4	254.6	205.8	173.7	163.9
32.5°	465.3	472.3	471.6	374.6	293.7	230.2	182.8	152.8	143.0
35°	416.5	429.0	431.8	339.0	261.6	202.3	159.7	132.5	122.8
37.5°	372.5	385.1	391.4	307.6	231.6	177.9	138.1	114.4	104.6
40°	330.0	340.4	345.3	271.4	202.3	152.8	117.9	95.6	85.8
42.5°	288.8	304.2	302.8	240.7	176.5	132.5	99.8	77.4	67.7
45°	258.1	268.6	264.4	208.6	149.3	111.6	80.9	60.0	50.9
47.5°	227.4	235.1	228.8	181.4	126.3	92.1	65.6	43.9	34.2
50°	202.3	205.8	197.4	154.2	105.3	75.3	49.5	29.3	27.9
52.5°	178.6	180.7	168.8	131.1	87.2	60.7	36.3	23.0	24.4
55°	159.1	158.4	145.1	110.9	71.9	46.7	24.4	20.9	22.3
57.5°	140.2	138.1	124.9	92.1	58.6	36.3	14.6	18.1	19.5
60°	123.5	121.4	106.0	76.0	46.7	27.2	11.9	16.0	17.4
62.5°	110.2	105.3	90.0	62.8	37.7	19.5	10.5	14.0	15.3
65°	95.6	91.4	76.7	50.9	29.3	14.0	9.1	11.9	13.3
67.5°	83.7	78.8	64.9	41.9	23.7	9.8	8.4	10.5	11.9
70°	71.9	67.7	53.7	33.5	17.4	6.3	7.0	9.1	10.5
72.5°	62.1	57.2	44.6	26.5	13.3	4.9	6.3	7.7	8.4
75°	50.9	46.7	35.6	20.2	9.1	4.2	4.9	6.3	7.0
77.5°	42.6	38.4	27.9	15.3	6.3	3.5	4.2	5.6	5.6
80°	32.8	29.3	20.9	10.5	4.2	2.1	3.5	4.2	4.2
82.5°	23.7	20.9	14.6	7.0	2.1	2.1	2.1	2.8	2.8
85°	16.0	14.0	9.1	4.2	1.4	1.4	1.4	1.4	1.4
87.5°	9.1	7.0	4.2	1.4	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	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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