

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: P837525

Luminaire Tested: HCSQ440D010-HM43040835-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837525
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: HCSQ440D010-HM43040835-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

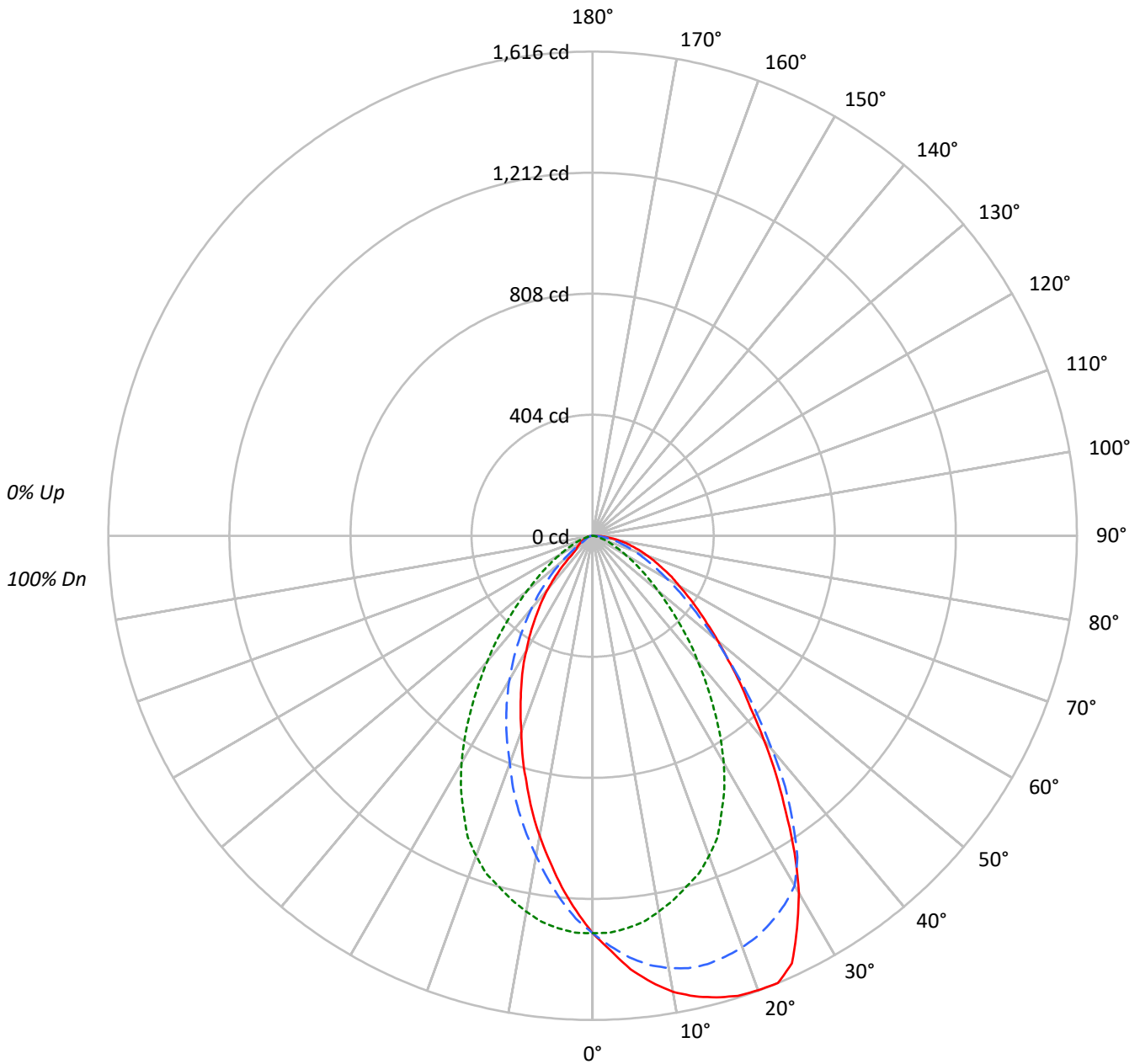
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2145.1 lumens
Efficiency: N/A
Efficacy: 52.3 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): 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					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°	128476	128476	128476	128476	128476
5°	141220	137379	127868	118533	114507
10°	152100	144151	125274	106771	100111
15°	159977	148473	121495	95459	85460
20°	166392	150680	117134	83196	71753
25°	168299	151602	108782	72985	60318
30°	154023	150868	97846	62072	49454
35°	132809	137706	83423	50948	39157
40°	112513	117749	68985	40202	29263
45°	95354	97669	55144	29894	18810
50°	82213	80224	42802	20135	11333
55°	72440	66089	32715	11113	10168
60°	64500	55393	24413	6200	9106
65°	59072	47427	18109	5616	8183
70°	54865	41014	13313	5325	7988
75°	51391	35895	9170	4941	7037
80°	49317	31465	6304	5244	6304
85°	48129	27232	4224	4224	4224

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 99217 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.4	5.8
10°-20°	342.4	16.0
20°-30°	478.7	22.3
30°-40°	467.9	21.8
40°-50°	339.5	15.8
50°-60°	204.7	9.5
60°-70°	115.1	5.4
70°-80°	57.0	2.7
80°-90°	15.6	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°	945.4	44.1
0°-40°	1413.3	65.9
0°-60°	1957.5	91.3
0°-90°	2145.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2145.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1326	1326	1326	1326	1326	
5°	1452	1413	1315	1219	1178	141
15°	1595	1480	1211	952	852	452
25°	1574	1418	1018	683	564	710
35°	1123	1164	705	431	331	703
45°	696	713	402	218	137	540
55°	429	391	194	66	60	386
65°	258	207	79	24	36	258
75°	137	96	24	13	19	148
85°	43	24	4	4	4	48
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°	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2
2.5°	1386.3	1382.6	1371.3	1348.7	1326.2	1299.8	1279.1	1264.1	1252.8
5°	1452.2	1444.7	1412.7	1365.7	1314.9	1264.1	1218.9	1192.6	1177.5
7.5°	1503.0	1489.8	1444.7	1378.8	1299.8	1222.7	1153.1	1111.7	1094.8
10°	1546.2	1523.7	1465.4	1376.9	1273.5	1171.9	1085.4	1036.5	1017.7
12.5°	1574.5	1550.0	1478.5	1375.1	1245.3	1121.1	1019.5	955.6	936.8
15°	1595.1	1565.0	1480.4	1360.0	1211.4	1068.4	951.8	876.6	852.1
17.5°	1610.2	1568.8	1472.9	1343.1	1181.3	1013.9	882.2	801.3	776.9
20°	1614.0	1568.8	1461.6	1318.6	1136.2	959.3	807.0	726.1	696.0
22.5°	1615.8	1563.2	1444.7	1288.5	1089.1	897.3	744.9	660.3	628.3
25°	1574.5	1544.4	1418.3	1237.7	1017.7	829.6	682.8	590.7	564.3
27.5°	1476.6	1474.8	1388.2	1170.0	951.8	756.2	618.9	530.5	506.0
30°	1376.9	1378.8	1348.7	1094.8	874.7	686.6	554.9	468.4	442.1
32.5°	1254.7	1273.5	1271.6	1010.1	791.9	620.8	492.8	412.0	385.6
35°	1123.0	1156.9	1164.4	914.2	705.4	545.5	430.8	357.4	331.1
37.5°	1004.5	1038.3	1055.3	829.6	624.5	479.7	372.5	308.5	282.2
40°	889.7	918.0	931.1	731.7	545.5	412.0	317.9	257.7	231.4
42.5°	778.8	820.1	816.4	649.0	475.9	357.4	269.0	208.8	182.5
45°	696.0	724.2	712.9	562.4	402.5	301.0	218.2	161.8	137.3
47.5°	613.2	633.9	617.0	489.1	340.5	248.3	176.8	118.5	92.2
50°	545.5	554.9	532.3	415.7	284.0	203.2	133.6	79.0	75.2
52.5°	481.6	487.2	455.2	353.6	235.1	163.7	97.8	62.1	65.8
55°	428.9	427.0	391.3	299.1	193.7	126.0	65.8	56.4	60.2
57.5°	378.1	372.5	336.7	248.3	158.0	97.8	39.5	48.9	52.7
60°	332.9	327.3	285.9	205.0	126.0	73.4	32.0	43.3	47.0
62.5°	297.2	284.0	242.7	169.3	101.6	52.7	28.2	37.6	41.4
65°	257.7	246.4	206.9	137.3	79.0	37.6	24.5	32.0	35.7
67.5°	225.7	212.6	174.9	112.9	64.0	26.3	22.6	28.2	32.0
70°	193.7	182.5	144.8	90.3	47.0	16.9	18.8	24.5	28.2
72.5°	167.4	154.2	120.4	71.5	35.7	13.2	16.9	20.7	22.6
75°	137.3	126.0	95.9	54.6	24.5	11.3	13.2	16.9	18.8
77.5°	114.7	103.5	75.2	41.4	16.9	9.4	11.3	15.0	15.0
80°	88.4	79.0	56.4	28.2	11.3	5.6	9.4	11.3	11.3
82.5°	64.0	56.4	39.5	18.8	5.6	5.6	5.6	7.5	7.5
85°	43.3	37.6	24.5	11.3	3.8	3.8	3.8	3.8	3.8
87.5°	24.5	18.8	11.3	3.8	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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