

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: P838502

Luminaire Tested: HCSQ630D010-HM63040830-61SQMB

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838502
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ630D010-HM63040830-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

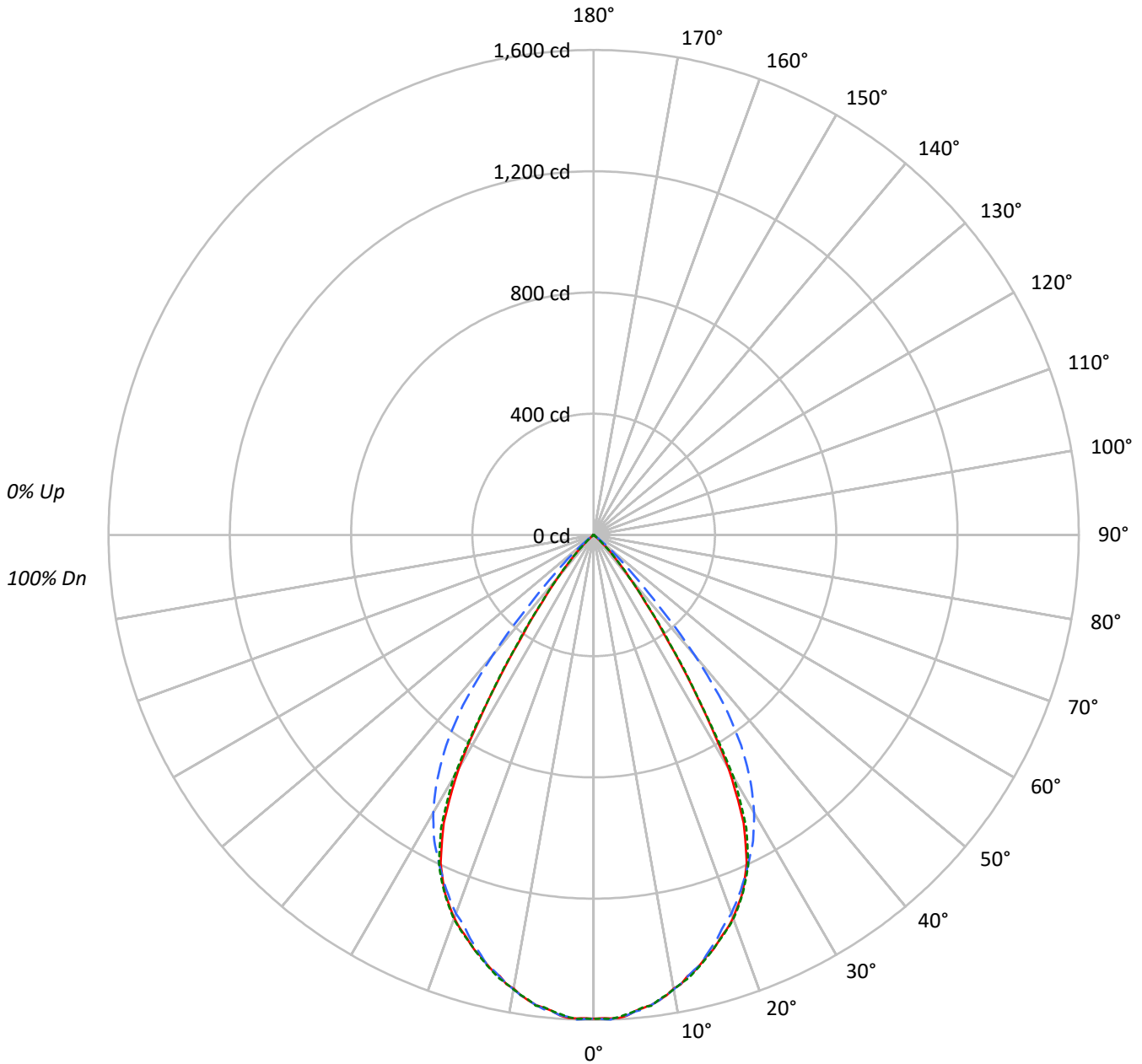
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1586.6 lumens
Efficiency: N/A
Efficacy: 56.3 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.01 / 1.03
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
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										
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	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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93								
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87								
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81								
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75								
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70								
6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65								
7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60								
8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56								
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53								
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	68721	68721	68721
5°	68141	68197	68141
10°	66437	66550	66550
15°	64152	63978	64325
20°	61608	60893	61782
25°	56732	57160	57284
30°	44223	52600	45898
35°	22423	44572	23237
40°	10201	29148	10201
45°	3946	10972	3867
50°	610	3476	610
55°	195	683	195
60°	112	112	112
65°	132	0	132
70°	0	0	164
75°	0	0	216
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10972 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.0	9.4
10°-20°	404.2	25.5
20°-30°	544.8	34.3
30°-40°	383.1	24.1
40°-50°	97.8	6.2
50°-60°	6.8	0.4
60°-70°	0.8	0.1
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	1098.1	69.2
0°-40°	1481.1	93.4
0°-60°	1585.7	99.9
0°-90°	1586.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1586.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1596	1596	1596	1596	1596	
5°	1577	1579	1578	1579	1577	149
15°	1439	1437	1435	1439	1443	405
25°	1194	1198	1203	1207	1206	534
35°	427	565	848	580	442	287
45°	65	97	180	98	64	57
55°	3	3	9	3	3	3
65°	1	1	0	1	1	1
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1596.1	1596.1	1596.1	1596.1	1596.1
1°	1594.8	1596.1	1597.4	1597.4	1596.1
2°	1596.1	1592.2	1600.0	1596.1	1597.4
3°	1596.1	1588.3	1592.2	1594.8	1593.5
4°	1589.6	1584.4	1588.3	1587.0	1584.4
5°	1576.6	1579.2	1577.9	1579.2	1576.6
6°	1568.9	1571.5	1574.1	1570.2	1566.3
7°	1562.4	1561.1	1562.4	1565.0	1565.0
8°	1550.7	1553.3	1550.7	1552.0	1548.1
9°	1537.8	1537.8	1537.8	1540.3	1536.5
10°	1519.6	1526.1	1522.2	1524.8	1522.2
11°	1510.5	1507.9	1507.9	1509.2	1507.9
12°	1488.5	1491.1	1489.8	1492.4	1496.3
13°	1476.8	1478.1	1472.9	1479.4	1479.4
14°	1458.7	1457.4	1460.0	1458.7	1461.3
15°	1439.2	1436.6	1435.3	1439.2	1443.1
16°	1424.9	1418.5	1414.6	1419.8	1424.9
17°	1404.2	1397.7	1392.5	1402.9	1404.2
18°	1383.5	1380.9	1367.9	1380.9	1387.3
19°	1366.6	1357.5	1345.9	1360.1	1367.9
20°	1344.6	1336.8	1329.0	1336.8	1348.4
22.5°	1281.0	1274.5	1268.1	1277.1	1283.6
25°	1194.2	1198.0	1203.2	1207.1	1205.8
27.5°	1071.0	1106.0	1138.4	1117.7	1090.4
30°	889.5	977.6	1058.0	991.9	923.2
32.5°	644.4	794.8	962.1	824.6	650.9
35°	426.6	565.3	848.0	579.6	442.1
37.5°	277.5	379.9	707.9	381.2	290.4
40°	181.5	247.6	518.6	252.8	181.5
42.5°	111.5	156.9	315.1	163.4	111.5
45°	64.8	97.2	180.2	98.5	63.5
47.5°	29.8	53.2	102.4	51.9	31.1
50°	9.1	23.3	51.9	23.3	9.1
52.5°	3.9	6.5	24.6	6.5	3.9
55°	2.6	2.6	9.1	2.6	2.6
57.5°	2.6	1.3	2.6	2.6	2.6
60°	1.3	1.3	1.3	1.3	1.3
62.5°	1.3	1.3	1.3	1.3	1.3
65°	1.3	1.3	0.0	1.3	1.3
67.5°	1.3	0.0	0.0	0.0	1.3
70°	0.0	0.0	0.0	0.0	1.3
72.5°	0.0	0.0	0.0	0.0	1.3
75°	0.0	0.0	0.0	0.0	1.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0

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