

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: P838522

Luminaire Tested: HCSQ630D010-HM63040930-61SQMB

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838522
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-HM63040930-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

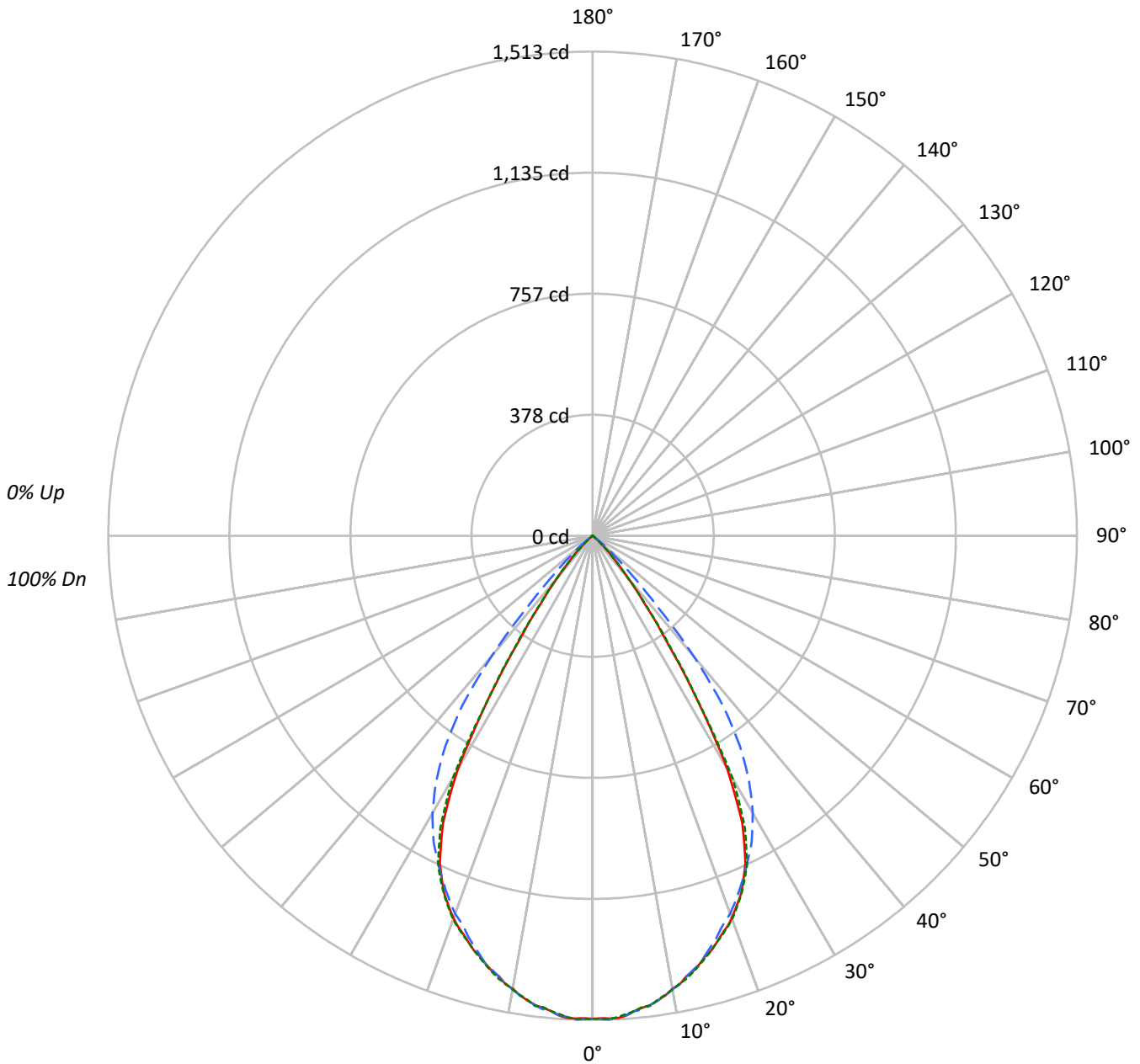
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1500.2 lumens
Efficiency: N/A
Efficacy: 53.2 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 (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	50	30	10	0		
RCR	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100		
	1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93	93	93	93	93	93		
	2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87	87	87	87	87	87		
	3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81	81	81	81	81	81		
	4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75	75	75	75	75	75		
	5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70	70	70	70	70	70		
	6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65	65	65	65	65	65		
	7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60	60	60	60	60	60		
	8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56	56	56	56	56	56		
	9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53	53	53	53	53	53		
	10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50	50	50	50	50	50		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	64980	64980	64980
5°	64433	64484	64433
10°	62821	62926	62926
15°	60657	60497	60822
20°	58250	57576	58419
25°	53640	54048	54167
30°	41811	49736	43397
35°	21198	42144	21976
40°	9645	27563	9645
45°	3733	10376	3659
50°	576	3282	576
55°	188	646	188
60°	103	103	103
65°	122	0	122
70°	0	0	151
75°	0	0	200
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10376 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.9	9.4
10°-20°	382.2	25.5
20°-30°	515.2	34.3
30°-40°	362.2	24.1
40°-50°	92.5	6.2
50°-60°	6.4	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°	1038.3	69.2
0°-40°	1400.5	93.4
0°-60°	1499.4	99.9
0°-90°	1500.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1500.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1509	1509	1509	1509	1509	
5°	1491	1493	1492	1493	1491	141
15°	1361	1358	1357	1361	1364	383
25°	1129	1133	1138	1141	1140	505
35°	403	534	802	548	418	271
45°	61	92	170	93	60	53
55°	2	2	9	2	2	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°	1509.2	1509.2	1509.2	1509.2	1509.2
1°	1508.0	1509.2	1510.4	1510.4	1509.2
2°	1509.2	1505.5	1512.9	1509.2	1510.4
3°	1509.2	1501.8	1505.5	1508.0	1506.7
4°	1503.1	1498.2	1501.8	1500.6	1498.2
5°	1490.8	1493.2	1492.0	1493.2	1490.8
6°	1483.4	1485.9	1488.3	1484.7	1481.0
7°	1477.3	1476.1	1477.3	1479.8	1479.8
8°	1466.3	1468.7	1466.3	1467.5	1463.8
9°	1454.0	1454.0	1454.0	1456.5	1452.8
10°	1436.9	1443.0	1439.3	1441.8	1439.3
11°	1428.3	1425.8	1425.8	1427.0	1425.8
12°	1407.4	1409.9	1408.7	1411.1	1414.8
13°	1396.4	1397.6	1392.7	1398.8	1398.8
14°	1379.2	1378.0	1380.5	1379.2	1381.7
15°	1360.8	1358.4	1357.2	1360.8	1364.5
16°	1347.4	1341.2	1337.5	1342.5	1347.4
17°	1327.7	1321.6	1316.7	1326.5	1327.7
18°	1308.1	1305.7	1293.4	1305.7	1311.8
19°	1292.2	1283.6	1272.6	1286.1	1293.4
20°	1271.3	1264.0	1256.6	1264.0	1275.0
22.5°	1211.3	1205.1	1199.0	1207.6	1213.7
25°	1129.1	1132.8	1137.7	1141.4	1140.2
27.5°	1012.7	1045.8	1076.4	1056.8	1031.1
30°	841.0	924.4	1000.4	937.9	872.9
32.5°	609.3	751.5	909.7	779.7	615.4
35°	403.3	534.5	801.8	548.0	418.1
37.5°	262.4	359.2	669.4	360.4	274.6
40°	171.6	234.2	490.4	239.1	171.6
42.5°	105.4	148.3	297.9	154.5	105.4
45°	61.3	91.9	170.4	93.2	60.1
47.5°	28.2	50.3	96.9	49.0	29.4
50°	8.6	22.1	49.0	22.1	8.6
52.5°	3.7	6.1	23.3	6.1	3.7
55°	2.5	2.5	8.6	2.5	2.5
57.5°	2.5	1.2	2.5	2.5	2.5
60°	1.2	1.2	1.2	1.2	1.2
62.5°	1.2	1.2	1.2	1.2	1.2
65°	1.2	1.2	0.0	1.2	1.2
67.5°	1.2	0.0	0.0	0.0	1.2
70°	0.0	0.0	0.0	0.0	1.2
72.5°	0.0	0.0	0.0	0.0	1.2
75°	0.0	0.0	0.0	0.0	1.2



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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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