

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: P838517

Luminaire Tested: HCSQ630D010-HM63040927-61SQMB

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838517
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-HM63040927-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

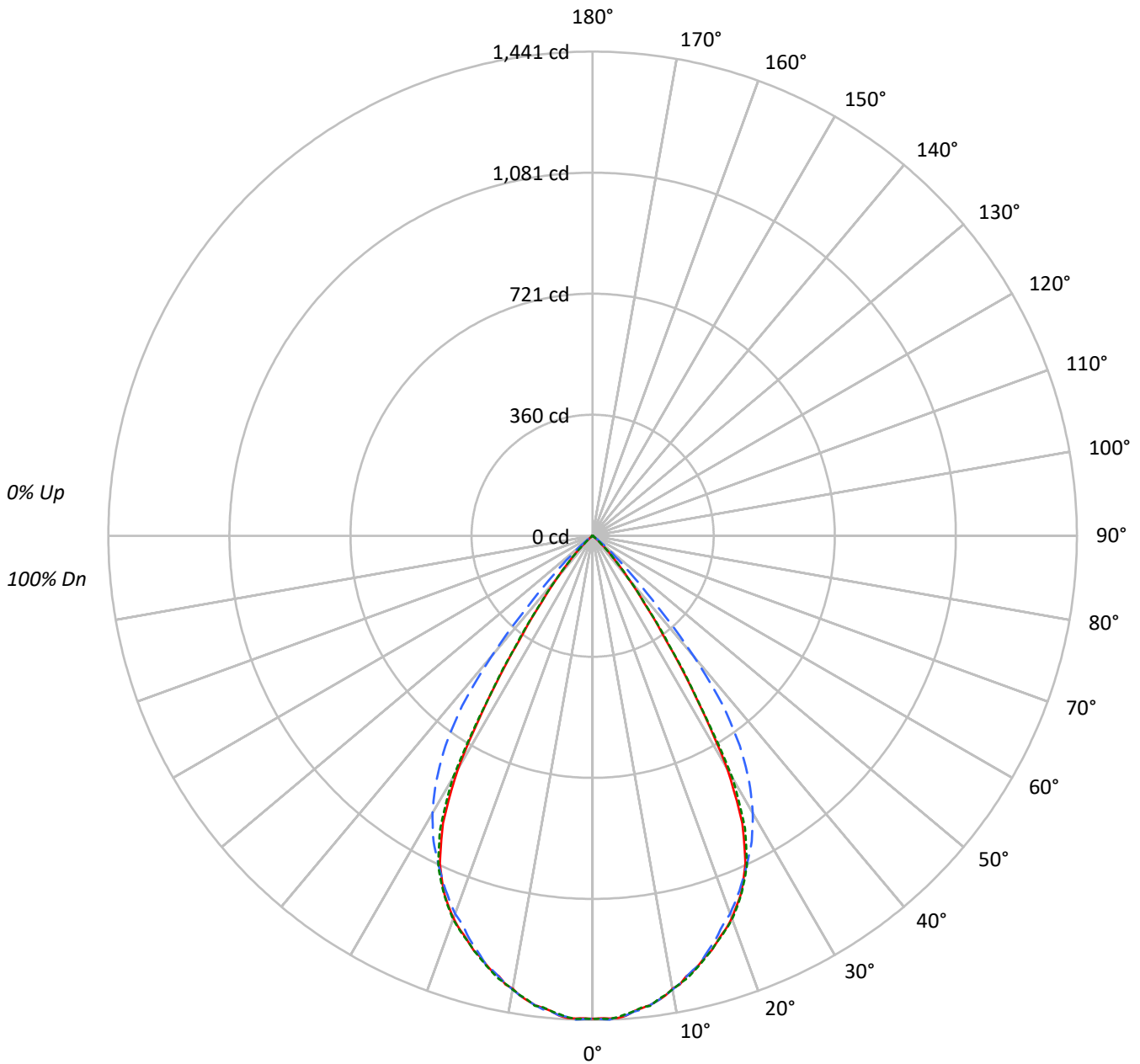
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1429.0 lumens
Efficiency: N/A
Efficacy: 50.7 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					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°	61893	61893	61893
5°	61373	61424	61373
10°	59835	59940	59940
15°	57777	57621	57933
20°	55487	54845	55647
25°	51093	51483	51592
30°	39828	47375	41339
35°	20194	40141	20930
40°	9190	26253	9190
45°	3556	9882	3483
50°	549	3128	549
55°	173	616	173
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: 9882 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.2	9.4
10°-20°	364.0	25.5
20°-30°	490.7	34.3
30°-40°	345.0	24.1
40°-50°	88.1	6.2
50°-60°	6.1	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°	989.0	69.2
0°-40°	1334.0	93.4
0°-60°	1428.2	99.9
0°-90°	1429.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1429.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1438	1438	1438	1438	1438	
5°	1420	1422	1421	1422	1420	134
15°	1296	1294	1293	1296	1300	365
25°	1076	1079	1084	1087	1086	481
35°	384	509	764	522	398	259
45°	58	88	162	89	57	51
55°	2	2	8	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°	1437.5	1437.5	1437.5	1437.5	1437.5
1°	1436.4	1437.5	1438.7	1438.7	1437.5
2°	1437.5	1434.0	1441.0	1437.5	1438.7
3°	1437.5	1430.5	1434.0	1436.4	1435.2
4°	1431.7	1427.0	1430.5	1429.4	1427.0
5°	1420.0	1422.4	1421.2	1422.4	1420.0
6°	1413.0	1415.4	1417.7	1414.2	1410.7
7°	1407.2	1406.0	1407.2	1409.5	1409.5
8°	1396.7	1399.0	1396.7	1397.8	1394.3
9°	1385.0	1385.0	1385.0	1387.3	1383.8
10°	1368.6	1374.5	1371.0	1373.3	1371.0
11°	1360.5	1358.1	1358.1	1359.3	1358.1
12°	1340.6	1343.0	1341.8	1344.1	1347.6
13°	1330.1	1331.3	1326.6	1332.4	1332.4
14°	1313.8	1312.6	1314.9	1313.8	1316.1
15°	1296.2	1293.9	1292.7	1296.2	1299.7
16°	1283.4	1277.6	1274.1	1278.7	1283.4
17°	1264.7	1258.9	1254.2	1263.5	1264.7
18°	1246.0	1243.7	1232.0	1243.7	1249.5
19°	1230.8	1222.7	1212.2	1225.0	1232.0
20°	1211.0	1204.0	1197.0	1204.0	1214.5
22.5°	1153.8	1147.9	1142.1	1150.3	1156.1
25°	1075.5	1079.0	1083.7	1087.2	1086.0
27.5°	964.6	996.1	1025.3	1006.6	982.1
30°	801.1	880.5	952.9	893.4	831.5
32.5°	580.4	715.9	866.5	742.7	586.2
35°	384.2	509.2	763.7	522.0	398.2
37.5°	249.9	342.2	637.6	343.3	261.6
40°	163.5	223.0	467.1	227.7	163.5
42.5°	100.4	141.3	283.8	147.1	100.4
45°	58.4	87.6	162.3	88.8	57.2
47.5°	26.9	47.9	92.3	46.7	28.0
50°	8.2	21.0	46.7	21.0	8.2
52.5°	3.5	5.8	22.2	5.8	3.5
55°	2.3	2.3	8.2	2.3	2.3
57.5°	2.3	1.2	2.3	2.3	2.3
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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