

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: P838369

Luminaire Tested: HCSQ610D010-HM60525940-61SQC

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838369
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ610D010-HM60525940-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

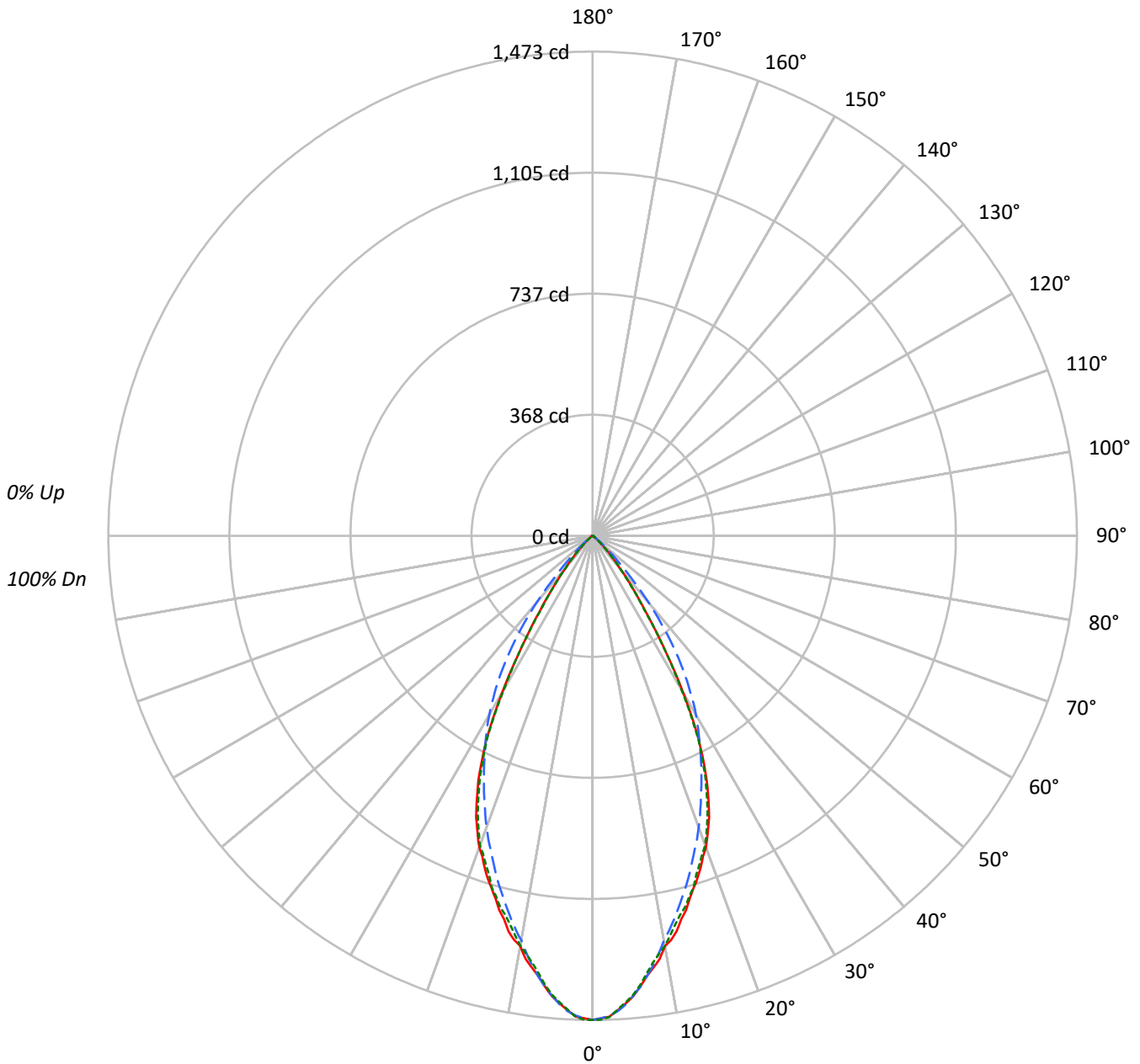
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1103.3 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 9.9
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	107	105	105	103	101	101	100	98	98	96	95	94	94	94	94	94	94		
	2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87	87	87	87	87	87		
	3	103	96	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81	81	81	81	81	81		
	4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76	76	76	76	76	76		
	5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71	71	71	71	71	71		
	6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66	66	66	66	66	66		
	7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62	62	62	62	62	62		
	8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59	59	59	59	59	59		
	9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55	55	55	55	55	55		
	10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52	52	52	52	52	52		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	63421	63421	63421
5°	60832	60729	60642
10°	55406	54654	55362
15°	50922	49054	50614
20°	46208	43235	45897
25°	39055	37160	38518
30°	27344	31282	26882
35°	14686	23999	14402
40°	7273	14849	7217
45°	3172	6259	3118
50°	1025	2271	1025
55°	518	736	480
60°	336	336	336
65°	255	255	255
70°	189	189	189
75°	166	166	166
80°	124	124	124
85°	247	247	247

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6259 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.3	11.7
10°-20°	312.3	28.3
20°-30°	360.8	32.7
30°-40°	225.3	20.4
40°-50°	62.6	5.7
50°-60°	8.7	0.8
60°-70°	2.6	0.2
70°-80°	1.1	0.1
80°-90°	0.5	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°	802.5	72.7
0°-40°	1027.8	93.2
0°-60°	1099.1	99.6
0°-90°	1103.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1103.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1473	1473	1473	1473	1473	
5°	1408	1404	1405	1403	1403	130
15°	1142	1121	1100	1118	1136	320
25°	822	798	782	798	811	367
35°	279	345	457	341	274	186
45°	52	66	103	66	51	45
55°	7	7	10	7	6	7
65°	2	2	2	2	2	3
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1473.0	1473.0	1473.0	1473.0	1473.0
1°	1468.5	1468.5	1468.5	1472.5	1472.5
2°	1464.1	1463.1	1460.7	1463.6	1465.1
3°	1445.9	1447.9	1448.9	1447.4	1443.9
4°	1427.2	1425.3	1430.7	1427.2	1424.3
5°	1407.5	1403.6	1405.1	1403.1	1403.1
6°	1380.0	1384.9	1381.0	1377.5	1375.6
7°	1350.0	1353.9	1351.5	1346.5	1343.1
8°	1326.4	1323.9	1320.0	1319.0	1313.1
9°	1303.7	1294.9	1286.0	1287.5	1289.0
10°	1267.3	1268.3	1250.1	1263.9	1266.3
11°	1252.1	1246.7	1222.6	1233.9	1237.8
12°	1229.9	1212.7	1192.1	1201.4	1208.8
13°	1198.0	1180.2	1161.6	1175.8	1183.2
14°	1173.9	1153.7	1130.1	1148.3	1163.5
15°	1142.4	1120.7	1100.5	1117.8	1135.5
16°	1114.8	1089.7	1069.6	1086.3	1112.8
17°	1090.7	1059.7	1035.1	1052.8	1078.4
18°	1062.7	1026.8	1004.1	1022.8	1051.8
19°	1031.7	995.3	975.1	990.3	1023.8
20°	1008.5	967.7	943.6	958.4	1001.7
22.5°	925.9	883.1	861.0	878.7	913.1
25°	822.1	798.0	782.2	797.5	810.8
27.5°	699.1	699.1	704.5	698.1	694.2
30°	550.0	589.9	629.2	587.9	540.7
32.5°	401.5	465.4	544.6	473.8	401.0
35°	279.4	344.9	456.6	340.9	274.0
37.5°	194.3	237.6	360.1	240.1	191.9
40°	129.4	159.4	264.2	162.4	128.4
42.5°	84.6	105.3	170.7	105.8	82.7
45°	52.1	66.4	102.8	65.9	51.2
47.5°	30.5	39.4	60.0	39.9	30.0
50°	15.3	23.1	33.9	22.6	15.3
52.5°	8.9	12.3	18.7	11.8	8.9
55°	6.9	6.9	9.8	6.9	6.4
57.5°	5.4	5.4	5.4	5.4	4.9
60°	3.9	4.4	3.9	3.9	3.9
62.5°	3.4	3.4	3.0	3.4	3.0
65°	2.5	2.5	2.5	2.5	2.5
67.5°	2.0	2.0	2.0	2.0	2.0
70°	1.5	1.5	1.5	1.5	1.5
72.5°	1.0	1.5	1.0	1.5	1.5
75°	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.5	0.5	0.5	0.5
87.5°	0.5	0.5	0.5	0.5	0.5
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°	1.0	1.0	1.0	1.0	0.5
80°	0.5	0.5	0.5	0.5	0.5

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