

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: P838415

Luminaire Tested: HCSQ620D010-HM60525827-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838415
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ620D010-HM60525827-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

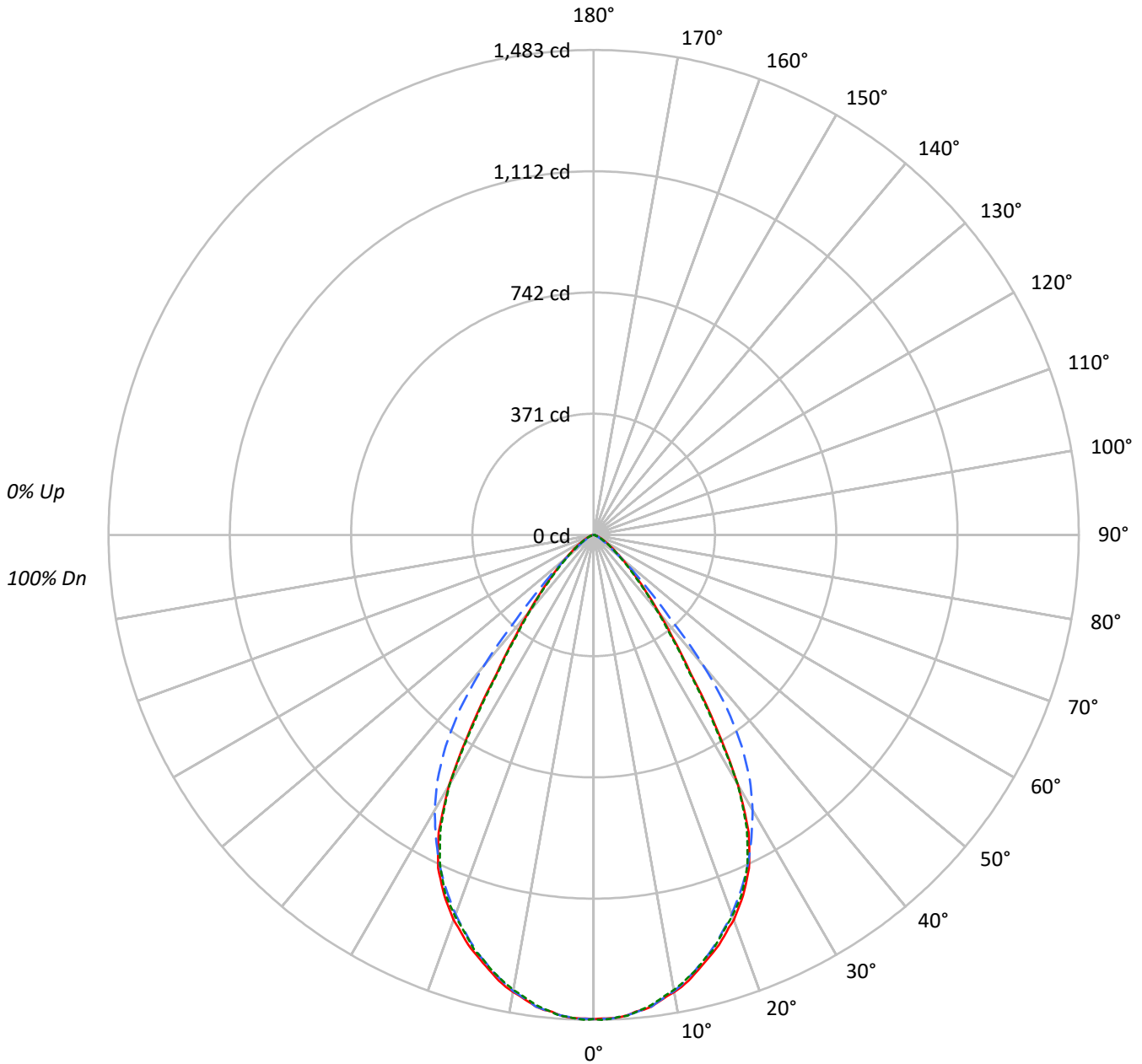
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1665.4 lumens
Efficiency: N/A
Efficacy: 83.3 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 20
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				
RW	70	50	30	10	70	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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92		
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85		
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78		
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71		
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66		
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61		
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56		
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52		
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48		
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	63757	63757	63757
5°	63253	63361	63326
10°	62047	61903	61759
15°	59855	59525	59489
20°	57388	56559	56825
25°	53416	52946	52827
30°	43895	48304	43770
35°	27111	41487	26465
40°	17401	29407	16805
45°	11350	14254	10802
50°	7536	7093	7040
55°	5119	3701	4744
60°	3462	2265	3186
65°	2425	1671	2180
70°	1548	1246	1448
75°	1098	948	948
80°	818	620	620
85°	395	790	395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 14254 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.3	8.3
10°-20°	375.3	22.5
20°-30°	506.7	30.4
30°-40°	395.4	23.7
40°-50°	165.7	9.9
50°-60°	56.2	3.4
60°-70°	20.0	1.2
70°-80°	6.5	0.4
80°-90°	1.3	0.1
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°	1020.3	61.3
0°-40°	1415.8	85.0
0°-60°	1637.6	98.3
0°-90°	1665.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1665.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1481	1481	1481	1481	1481	
5°	1464	1465	1466	1464	1465	138
15°	1343	1340	1335	1334	1335	378
25°	1124	1119	1114	1114	1112	506
35°	516	605	789	604	504	339
45°	186	200	234	190	177	150
55°	68	62	49	59	63	63
65°	24	20	16	19	21	24
75°	7	6	6	6	6	7
85°	1	1	2	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1480.8	1480.8	1480.8	1480.8	1480.8
1°	1479.2	1481.6	1480.0	1480.8	1483.3
2°	1479.2	1479.2	1480.8	1480.0	1480.8
3°	1477.5	1477.5	1475.9	1475.9	1475.9
4°	1472.6	1472.6	1472.6	1470.9	1474.2
5°	1463.5	1465.2	1466.0	1463.5	1465.2
6°	1460.3	1461.1	1459.4	1458.6	1457.0
7°	1452.9	1450.4	1452.9	1447.1	1447.9
8°	1440.6	1440.6	1438.9	1437.3	1435.6
9°	1429.1	1429.1	1427.4	1424.9	1423.3
10°	1419.2	1416.7	1415.9	1413.4	1412.6
11°	1407.7	1402.8	1402.0	1399.5	1399.5
12°	1393.7	1391.3	1385.5	1384.7	1384.7
13°	1376.5	1374.0	1369.9	1366.6	1369.9
14°	1360.1	1358.4	1351.0	1353.5	1352.7
15°	1342.8	1339.5	1335.4	1333.8	1334.6
16°	1327.2	1321.5	1315.7	1316.5	1321.5
17°	1310.8	1302.6	1296.8	1296.0	1298.5
18°	1290.3	1283.7	1274.6	1277.9	1277.9
19°	1269.7	1260.7	1254.9	1254.1	1257.4
20°	1252.5	1238.5	1234.4	1233.6	1240.2
22.5°	1193.3	1179.4	1176.1	1179.4	1185.9
25°	1124.4	1119.4	1114.5	1114.5	1112.0
27.5°	1026.6	1038.1	1043.9	1032.4	1013.5
30°	882.9	931.3	971.6	925.6	880.4
32.5°	695.6	795.8	888.6	793.4	679.2
35°	515.8	605.3	789.3	604.5	503.5
37.5°	397.5	455.0	671.0	447.6	386.0
40°	309.6	343.3	523.2	339.2	299.0
42.5°	240.6	262.0	348.2	257.1	232.4
45°	186.4	199.6	234.1	190.5	177.4
47.5°	145.4	151.1	160.2	144.5	137.2
50°	112.5	112.5	105.9	108.4	105.1
52.5°	87.1	83.8	71.5	78.8	80.5
55°	68.2	62.4	49.3	59.1	63.2
57.5°	51.7	46.0	35.3	43.5	47.6
60°	40.2	34.5	26.3	32.9	37.0
62.5°	31.2	26.3	20.5	24.6	27.9
65°	23.8	19.7	16.4	18.9	21.4
67.5°	18.1	14.8	12.3	14.0	16.4
70°	12.3	11.5	9.9	10.7	11.5
72.5°	9.0	8.2	7.4	7.4	8.2
75°	6.6	5.7	5.7	5.7	5.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.6	1.6	1.6	1.6	1.6
85°	0.8	0.8	1.6	0.8	0.8
87.5°	0.8	0.8	0.8	0.8	0.8
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°	4.1	4.1	4.1	4.1	4.1
80°	3.3	3.3	2.5	2.5	2.5

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Scaled Data Report



(END OF REPORT)