

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: P838420

Luminaire Tested: HCSQ620D010-HM60525830-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838420
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-HM60525830-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

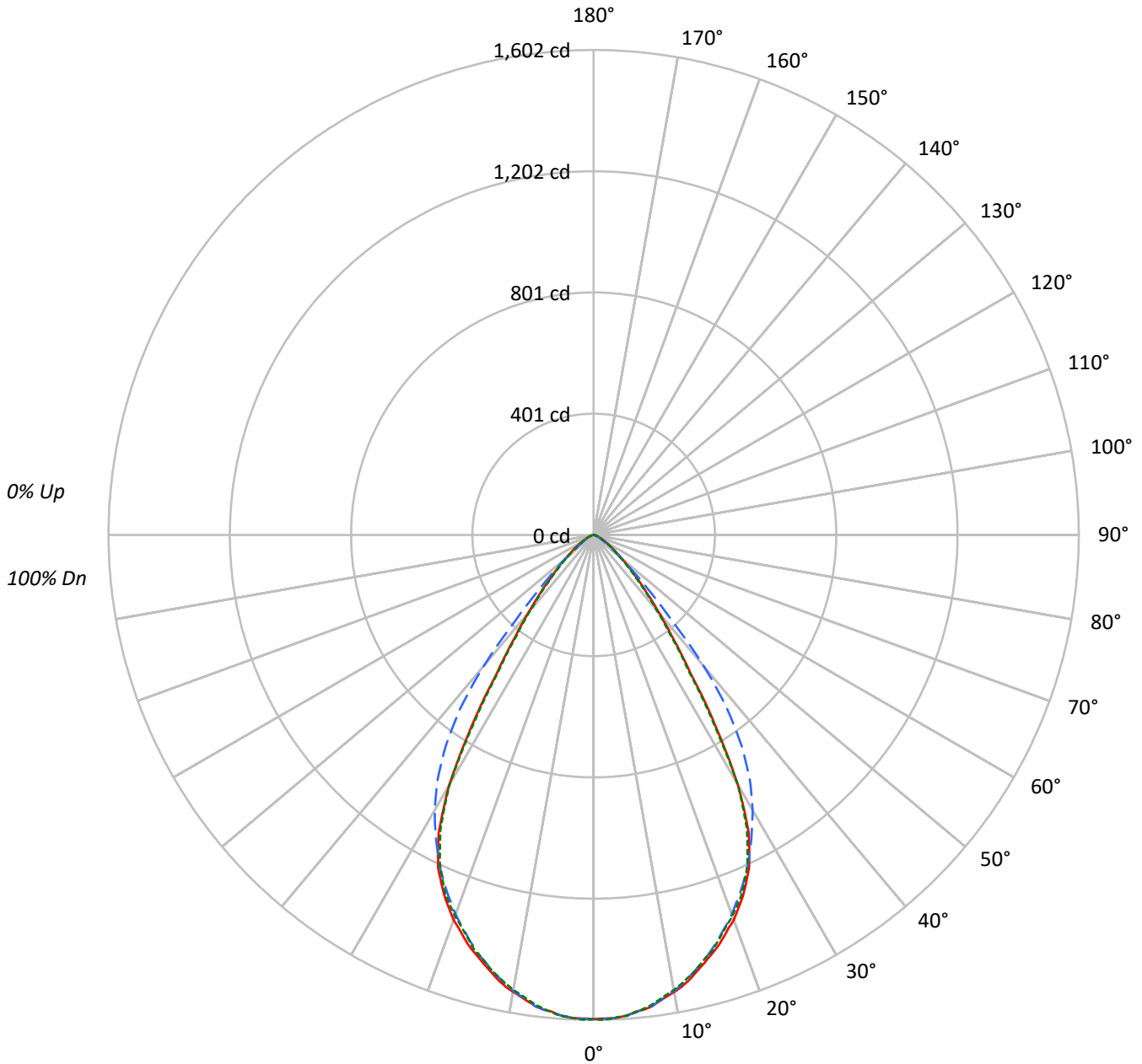
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1799.2 lumens
Efficiency: N/A
Efficacy: 90.0 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					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			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92					92			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85					85			
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78					78			
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71					71			
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66					66			
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61					61			
7	80	70	63	59	78	69	63	59	68	62	58	67	62	58	65	61	58	56					56			
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52					52			
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48					48			
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45					45			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	68876	68876	68876
5°	68331	68448	68409
10°	67027	66874	66717
15°	64660	64303	64268
20°	61993	61099	61384
25°	57702	57198	57070
30°	47419	52182	47285
35°	29287	44814	28588
40°	18801	31767	18154
45°	12263	15399	11667
50°	8145	7670	7609
55°	5525	3993	5127
60°	3746	2446	3436
65°	2618	1803	2353
70°	1674	1334	1561
75°	1181	1031	1031
80°	868	669	669
85°	445	889	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 15399 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.4	8.3
10°-20°	405.5	22.5
20°-30°	547.4	30.4
30°-40°	427.2	23.7
40°-50°	179.0	9.9
50°-60°	60.7	3.4
60°-70°	21.6	1.2
70°-80°	7.0	0.4
80°-90°	1.4	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°	1102.2	61.3
0°-40°	1529.4	85.0
0°-60°	1769.0	98.3
0°-90°	1799.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1799.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1600	1600	1600	1600	1600	
5°	1581	1583	1584	1581	1583	150
15°	1451	1447	1443	1441	1442	408
25°	1215	1209	1204	1204	1201	546
35°	557	654	853	653	544	366
45°	201	216	253	206	192	162
55°	74	67	53	64	68	68
65°	26	21	18	20	23	26
75°	7	6	6	6	6	8
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°	1599.7	1599.7	1599.7	1599.7	1599.7
1°	1597.9	1600.6	1598.8	1599.7	1602.3
2°	1597.9	1597.9	1599.7	1598.8	1599.7
3°	1596.1	1596.1	1594.4	1594.4	1594.4
4°	1590.8	1590.8	1590.8	1589.0	1592.6
5°	1581.0	1582.8	1583.7	1581.0	1582.8
6°	1577.5	1578.4	1576.6	1575.7	1574.0
7°	1569.5	1566.9	1569.5	1563.3	1564.2
8°	1556.2	1556.2	1554.4	1552.7	1550.9
9°	1543.8	1543.8	1542.0	1539.3	1537.6
10°	1533.1	1530.5	1529.6	1526.9	1526.0
11°	1520.7	1515.4	1514.5	1511.8	1511.8
12°	1505.6	1503.0	1496.8	1495.9	1495.9
13°	1487.0	1484.3	1479.9	1476.4	1479.9
14°	1469.3	1467.5	1459.5	1462.2	1461.3
15°	1450.6	1447.1	1442.6	1440.9	1441.8
16°	1433.8	1427.6	1421.3	1422.2	1427.6
17°	1416.0	1407.2	1400.9	1400.1	1402.7
18°	1393.8	1386.7	1377.0	1380.5	1380.5
19°	1371.7	1361.9	1355.7	1354.8	1358.4
20°	1353.0	1337.9	1333.5	1332.6	1339.7
22.5°	1289.2	1274.1	1270.5	1274.1	1281.2
25°	1214.6	1209.3	1204.0	1204.0	1201.3
27.5°	1109.0	1121.5	1127.7	1115.3	1094.8
30°	953.8	1006.1	1049.6	999.9	951.1
32.5°	751.5	859.7	960.0	857.1	733.7
35°	557.2	653.9	852.6	653.0	543.9
37.5°	429.4	491.5	724.9	483.5	417.0
40°	334.5	370.9	565.2	366.4	323.0
42.5°	260.0	283.0	376.2	277.7	251.1
45°	201.4	215.6	252.9	205.8	191.6
47.5°	157.0	163.3	173.0	156.2	148.2
50°	121.6	121.6	114.5	117.1	113.6
52.5°	94.0	90.5	77.2	85.2	86.9
55°	73.6	67.4	53.2	63.9	68.3
57.5°	55.9	49.7	38.2	47.0	51.5
60°	43.5	37.3	28.4	35.5	39.9
62.5°	33.7	28.4	22.2	26.6	30.2
65°	25.7	21.3	17.7	20.4	23.1
67.5°	19.5	16.0	13.3	15.1	17.7
70°	13.3	12.4	10.6	11.5	12.4
72.5°	9.8	8.9	8.0	8.0	8.9
75°	7.1	6.2	6.2	6.2	6.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.8	1.8	1.8	1.8	1.8
85°	0.9	0.9	1.8	0.9	0.9
87.5°	0.9	0.9	0.9	0.9	0.9
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°	4.4	4.4	4.4	4.4	4.4
80°	3.5	3.5	2.7	2.7	2.7

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(END OF REPORT)