

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: P837442

Luminaire Tested: HCSQ430D010-HM43040830-41SQMW

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837442
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ430D010-HM43040830-41SQMW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

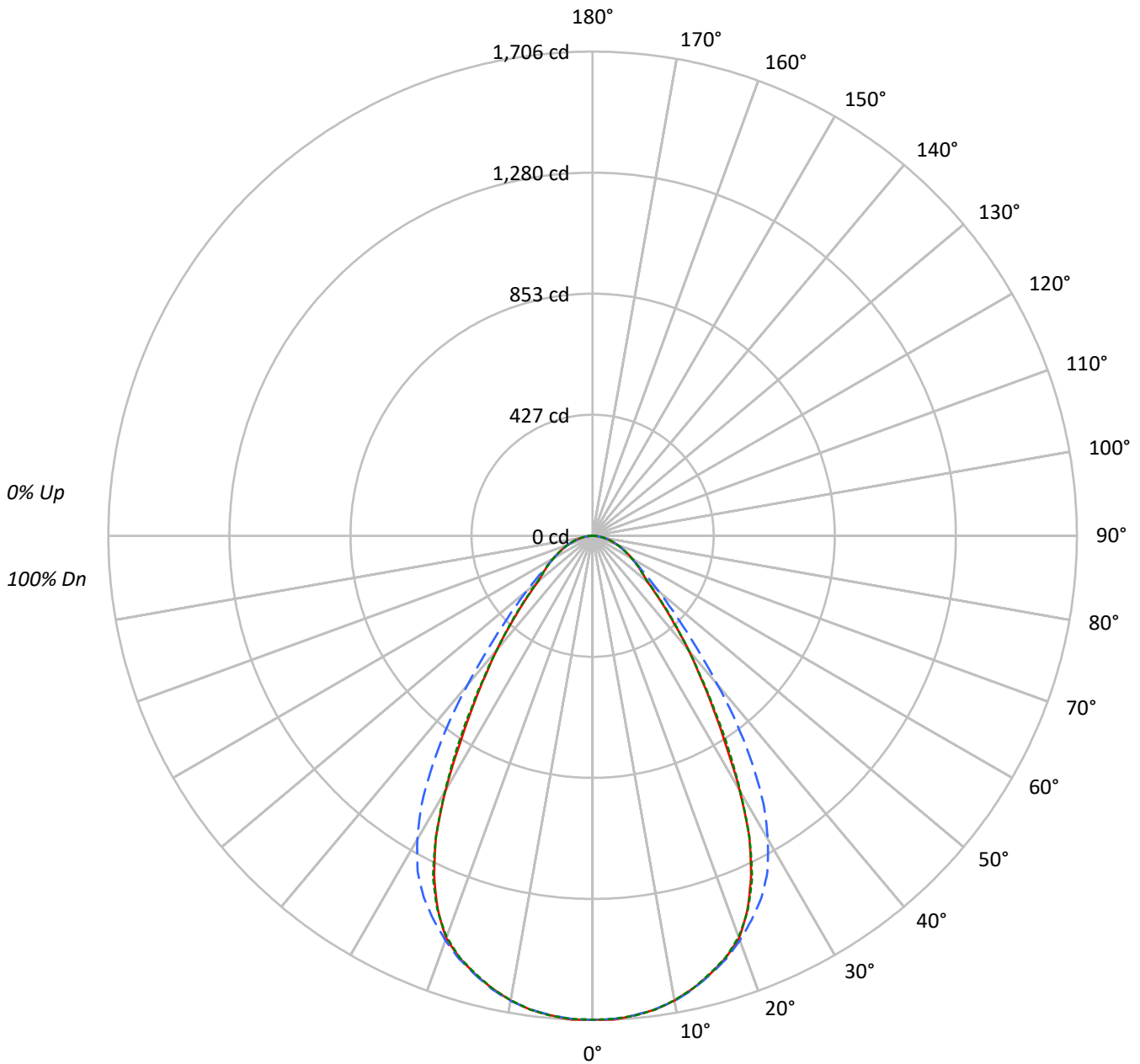
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2474.5 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.07
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
Input Voltage (V): NR
Input Current (Ain): 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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89								
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79								
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71								
4	91	81	74	69	89	80	73	68	77	72	67	75	70	66	73	69	66	64								
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58								
6	79	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53								
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48								
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44								
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41								
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	165192	165192	165192
5°	164919	164919	165045
10°	163569	163697	163442
15°	160388	160519	160117
20°	155577	156392	155031
25°	141191	150405	142185
30°	115900	138127	116348
35°	87124	115945	88378
40°	66355	86462	66178
45°	49554	61350	50458
50°	37738	45726	38537
55°	34016	35806	34016
60°	31058	30806	30806
65°	28241	28241	28241
70°	26257	25889	25889
75°	24292	23805	24292
80°	22148	21423	22148
85°	19118	19118	19118

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 61350 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.8	6.5
10°-20°	450.2	18.2
20°-30°	619.2	25.0
30°-40°	527.1	21.3
40°-50°	318.4	12.9
50°-60°	187.6	7.6
60°-70°	123.1	5.0
70°-80°	68.2	2.8
80°-90°	19.9	0.8
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°	1230.2	49.7
0°-40°	1757.3	71.0
0°-60°	2263.3	91.5
0°-90°	2474.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2474.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1705	1705	1705	1705	1705	
5°	1696	1697	1696	1695	1697	161
15°	1599	1603	1600	1599	1596	450
25°	1321	1362	1407	1365	1330	597
35°	737	811	980	833	747	466
45°	362	400	448	404	368	284
55°	201	205	212	205	201	181
65°	123	124	123	123	123	123
75°	65	65	64	64	65	69
85°	17	17	17	17	17	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1705.2	1705.2	1705.2	1705.2	1705.2
2.5°	1706.5	1702.5	1703.8	1702.5	1703.8
5°	1695.9	1697.2	1695.9	1694.6	1697.2
7.5°	1684.0	1682.6	1682.6	1681.3	1684.0
10°	1662.8	1660.1	1664.1	1661.5	1661.5
12.5°	1633.6	1637.6	1636.3	1636.3	1633.6
15°	1599.2	1603.2	1600.5	1599.2	1596.5
17.5°	1559.4	1562.1	1563.4	1558.1	1558.1
20°	1509.1	1514.4	1517.0	1507.8	1503.8
22.5°	1425.6	1449.5	1464.0	1448.1	1428.3
25°	1320.9	1362.0	1407.1	1364.7	1330.2
27.5°	1195.1	1253.4	1334.2	1262.6	1195.1
30°	1036.1	1122.2	1234.8	1131.5	1040.1
32.5°	871.8	963.2	1120.9	979.1	890.3
35°	736.7	810.9	980.4	833.4	747.3
37.5°	620.1	683.7	833.4	698.2	626.7
40°	524.7	575.0	683.7	581.6	523.3
42.5°	433.2	480.9	553.8	487.6	438.5
45°	361.7	400.1	447.8	404.1	368.3
47.5°	300.8	332.6	367.0	332.6	304.7
50°	250.4	275.6	303.4	275.6	255.7
52.5°	223.9	231.9	250.4	233.2	223.9
55°	201.4	205.4	212.0	205.4	201.4
57.5°	180.2	182.8	181.5	181.5	180.2
60°	160.3	161.6	159.0	160.3	159.0
62.5°	141.8	141.8	139.1	141.8	140.4
65°	123.2	124.5	123.2	123.2	123.2
67.5°	107.3	107.3	106.0	107.3	107.3
70°	92.7	92.7	91.4	92.7	91.4
72.5°	78.2	78.2	76.8	76.8	76.8
75°	64.9	64.9	63.6	63.6	64.9
77.5°	51.7	51.7	50.3	51.7	51.7
80°	39.7	39.7	38.4	39.7	39.7
82.5°	27.8	27.8	27.8	29.1	29.1
85°	17.2	17.2	17.2	17.2	17.2
87.5°	7.9	7.9	7.9	7.9	9.3
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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