

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: P837467

Luminaire Tested: HCSQ430D010-HM43040935-41SQMW

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837467
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-HM43040935-41SQMW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

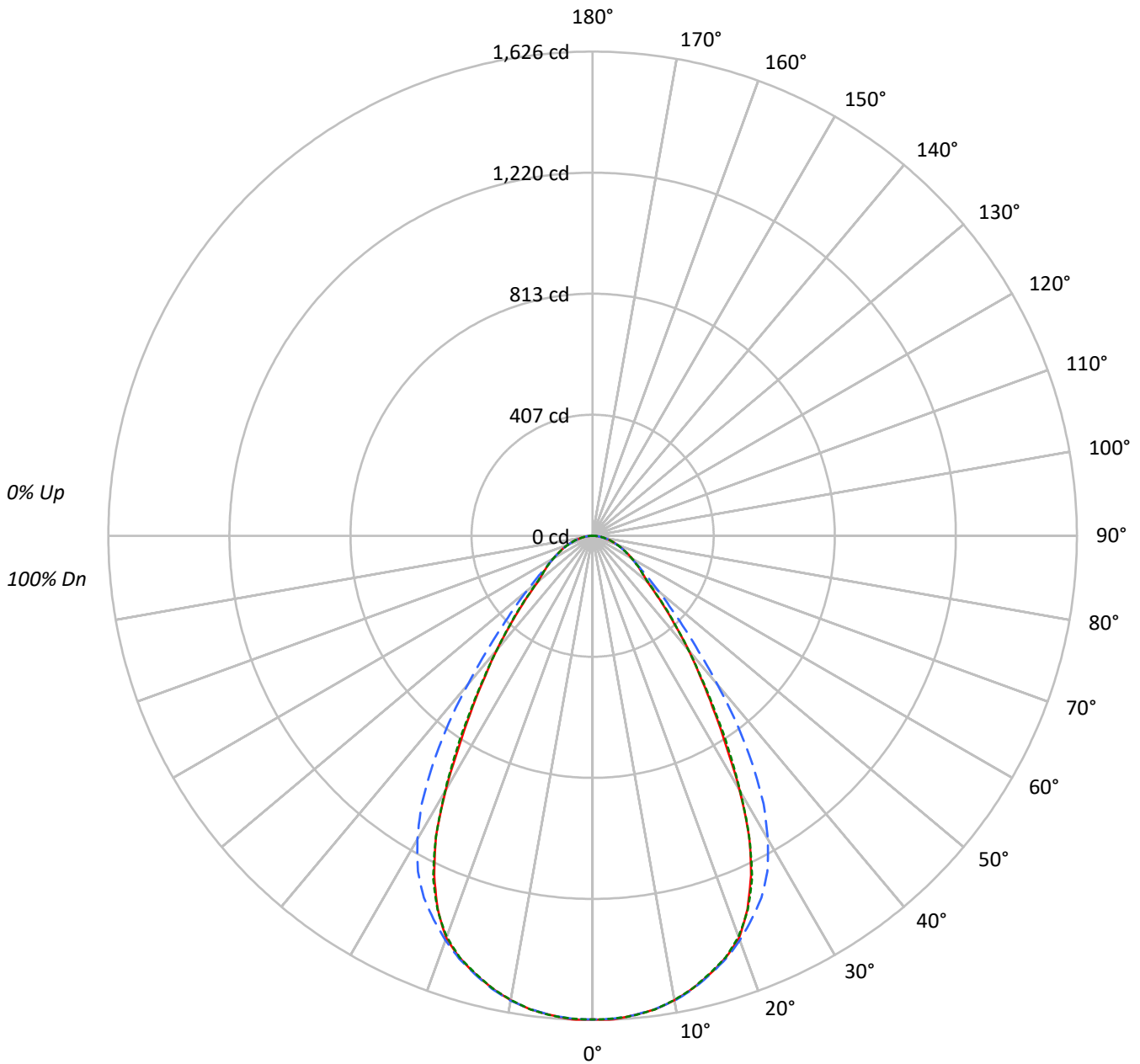
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2357.5 lumens
Efficiency: N/A
Efficacy: 83.6 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					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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71					71			
4	91	81	74	69	89	80	73	68	77	72	67	75	70	66	73	69	66	64					64			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58					58			
6	79	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53					53			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41					41			
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	157374	157374	157374
5°	157120	157120	157236
10°	155828	155956	155700
15°	152796	152926	152545
20°	148216	149000	147691
25°	134521	143286	135462
30°	110419	131595	110844
35°	82997	110470	84191
40°	63206	82365	63054
45°	47211	58445	48074
50°	35960	43571	36713
55°	32411	34117	32411
60°	29586	29353	29353
65°	26911	26911	26911
70°	25039	24671	24671
75°	23132	22682	23132
80°	21144	20419	21144
85°	18229	18229	18229

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 58445 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	6.5
10°-20°	428.9	18.2
20°-30°	589.9	25.0
30°-40°	502.2	21.3
40°-50°	303.3	12.9
50°-60°	178.8	7.6
60°-70°	117.3	5.0
70°-80°	65.0	2.8
80°-90°	19.0	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°	1172.0	49.7
0°-40°	1674.1	71.0
0°-60°	2156.2	91.5
0°-90°	2357.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2357.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1624	1624	1624	1624	1624	
5°	1616	1617	1616	1614	1617	153
15°	1524	1527	1525	1524	1521	429
25°	1258	1298	1340	1300	1267	569
35°	702	772	934	794	712	444
45°	345	381	427	385	351	271
55°	192	196	202	196	192	173
65°	117	119	117	117	117	118
75°	62	62	61	61	62	66
85°	16	16	16	16	16	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1624.5	1624.5	1624.5	1624.5	1624.5
2.5°	1625.8	1622.0	1623.2	1622.0	1623.2
5°	1615.7	1616.9	1615.7	1614.4	1616.9
7.5°	1604.3	1603.0	1603.0	1601.8	1604.3
10°	1584.1	1581.6	1585.4	1582.8	1582.8
12.5°	1556.3	1560.1	1558.9	1558.9	1556.3
15°	1523.5	1527.3	1524.8	1523.5	1521.0
17.5°	1485.7	1488.2	1489.4	1484.4	1484.4
20°	1437.7	1442.7	1445.3	1436.4	1432.6
22.5°	1358.2	1380.9	1394.8	1379.6	1360.7
25°	1258.5	1297.6	1340.5	1300.1	1267.3
27.5°	1138.5	1194.1	1271.1	1202.9	1138.5
30°	987.1	1069.1	1176.4	1078.0	990.9
32.5°	830.6	917.6	1067.9	932.8	848.2
35°	701.8	772.5	934.1	793.9	711.9
37.5°	590.7	651.3	793.9	665.2	597.0
40°	499.8	547.8	651.3	554.1	498.6
42.5°	412.8	458.2	527.6	464.5	417.8
45°	344.6	381.2	426.6	385.0	350.9
47.5°	286.5	316.8	349.6	316.8	290.3
50°	238.6	262.5	289.1	262.5	243.6
52.5°	213.3	220.9	238.6	222.2	213.3
55°	191.9	195.6	202.0	195.6	191.9
57.5°	171.7	174.2	172.9	172.9	171.7
60°	152.7	154.0	151.5	152.7	151.5
62.5°	135.1	135.1	132.5	135.1	133.8
65°	117.4	118.7	117.4	117.4	117.4
67.5°	102.2	102.2	101.0	102.2	102.2
70°	88.4	88.4	87.1	88.4	87.1
72.5°	74.5	74.5	73.2	73.2	73.2
75°	61.8	61.8	60.6	60.6	61.8
77.5°	49.2	49.2	48.0	49.2	49.2
80°	37.9	37.9	36.6	37.9	37.9
82.5°	26.5	26.5	26.5	27.8	27.8
85°	16.4	16.4	16.4	16.4	16.4
87.5°	7.6	7.6	7.6	7.6	8.8
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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