

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P837438

Luminaire Tested: HCSQ430D010-HM43040830-41SQC

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837438
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ430D010-HM43040830-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

Summary

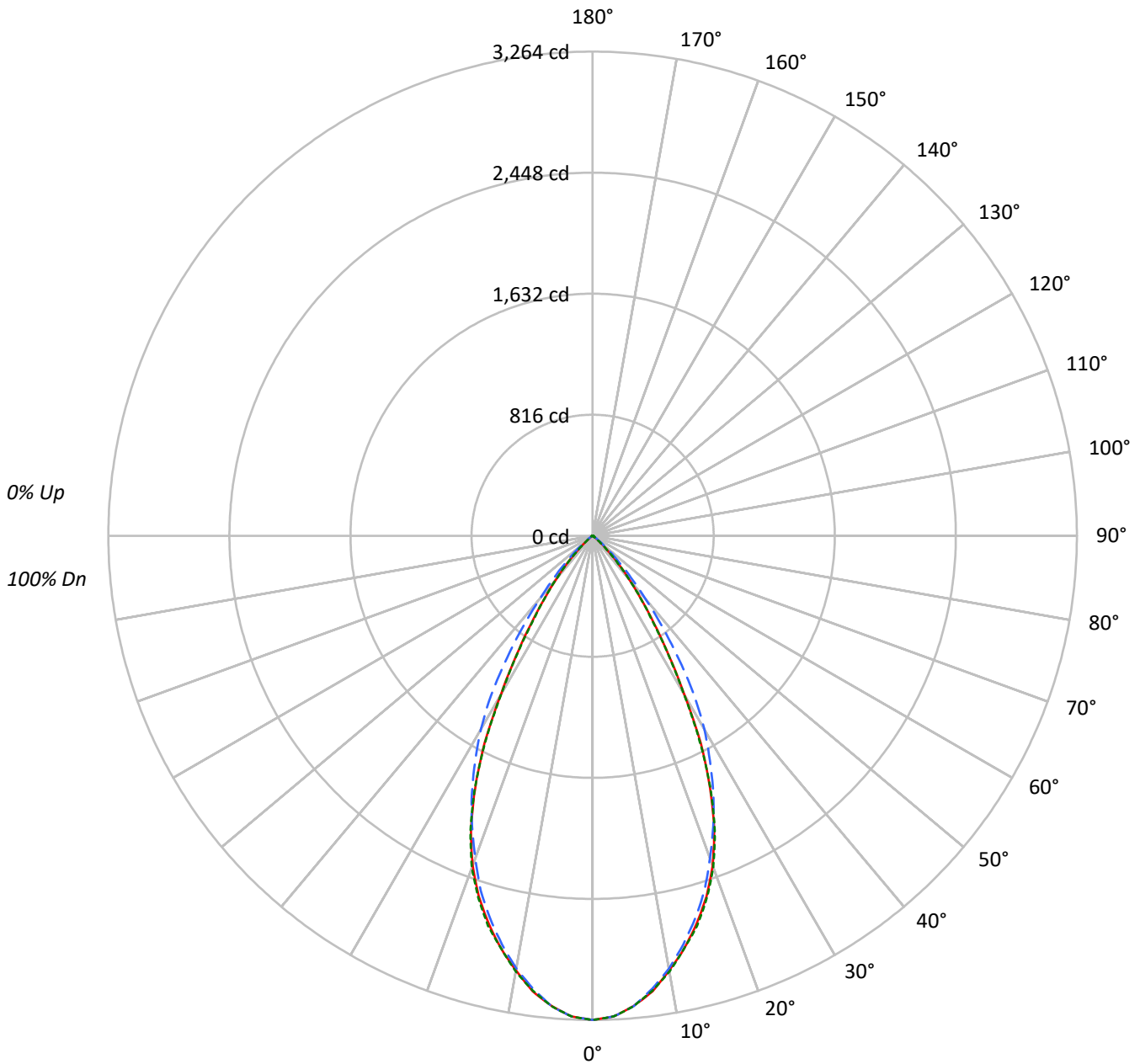
Lumens per Lamp: N/A
Luminaire Lumens: 2637.4 lumens
Efficiency: N/A
Efficacy: 93.5 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.87
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: HCSQ430D010-HM43040830-41SQC

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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94								
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87								
3	103	96	91	87	101	95	90	87	92	89	85	90	87	84	88	85	83	81								
4	98	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76								
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	78	75	72	71								
6	88	79	73	69	87	79	73	69	77	72	68	76	71	68	74	70	68	66								
7	84	75	69	65	82	74	68	64	73	68	64	72	67	64	70	66	63	62								
8	80	70	64	60	79	70	64	60	69	64	60	68	63	60	67	63	60	58								
9	76	67	61	57	75	66	60	57	65	60	56	64	60	56	63	59	56	55								
10	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	53	52								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	316182	316182	316182
5°	309406	309532	309532
10°	292650	291352	293437
15°	271543	267822	272997
20°	243752	238288	245257
25°	200205	206010	200911
30°	138396	168319	137355
35°	85220	118902	83186
40°	48081	69516	47739
45°	21962	34840	21057
50°	5591	13971	5787
55°	2685	4256	2466
60°	1802	1531	2054
65°	1513	1215	1513
70°	1133	1133	1501
75°	973	973	1497
80°	1450	1450	1450
85°	1445	2890	2890

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 34840 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.9	11.3
10°-20°	749.8	28.4
20°-30°	857.2	32.5
30°-40°	532.1	20.2
40°-50°	167.7	6.4
50°-60°	21.7	0.8
60°-70°	6.4	0.2
70°-80°	3.4	0.1
80°-90°	2.3	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°	1903.9	72.2
0°-40°	2436.0	92.4
0°-60°	2625.4	99.5
0°-90°	2637.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2637.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3264	3264	3264	3264	3264	
5°	3182	3179	3183	3180	3183	297
15°	2708	2688	2670	2688	2722	755
25°	1873	1900	1927	1900	1880	840
35°	721	832	1005	812	703	463
45°	160	192	254	193	154	135
55°	16	16	25	16	15	16
65°	7	7	5	7	7	7
75°	3	3	3	3	4	3
85°	1	3	3	3	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3263.8	3263.8	3263.8	3263.8	3263.8
2.5°	3243.9	3246.6	3243.9	3249.2	3243.9
5°	3181.7	3179.0	3183.0	3180.3	3183.0
7.5°	3096.9	3081.0	3079.7	3090.3	3091.6
10°	2975.0	2971.1	2961.8	2971.1	2983.0
12.5°	2850.5	2834.6	2821.4	2839.9	2850.5
15°	2707.5	2687.6	2670.4	2687.6	2722.0
17.5°	2549.8	2522.0	2507.5	2527.3	2560.4
20°	2364.4	2335.3	2311.4	2328.6	2379.0
22.5°	2141.9	2139.2	2123.3	2132.6	2151.1
25°	1873.0	1899.5	1927.3	1899.5	1879.6
27.5°	1577.6	1649.1	1712.7	1629.2	1565.7
30°	1237.2	1345.8	1504.7	1337.8	1227.9
32.5°	956.4	1070.3	1272.9	1055.7	948.4
35°	720.6	831.8	1005.4	812.0	703.4
37.5°	529.8	613.3	764.3	608.0	529.8
40°	380.2	434.5	549.7	433.1	377.5
42.5°	263.6	299.4	384.1	296.7	255.6
45°	160.3	192.1	254.3	193.4	153.7
47.5°	84.8	121.9	160.3	116.6	84.8
50°	37.1	64.9	92.7	63.6	38.4
52.5°	19.9	27.8	50.3	27.8	19.9
55°	15.9	15.9	25.2	15.9	14.6
57.5°	11.9	11.9	13.2	11.9	11.9
60°	9.3	9.3	7.9	9.3	10.6
62.5°	7.9	7.9	6.6	7.9	7.9
65°	6.6	6.6	5.3	6.6	6.6
67.5°	5.3	5.3	5.3	5.3	5.3
70°	4.0	4.0	4.0	5.3	5.3
72.5°	4.0	4.0	4.0	4.0	4.0
75°	2.6	2.6	2.6	2.6	4.0
77.5°	2.6	2.6	2.6	2.6	2.6
80°	2.6	2.6	2.6	2.6	2.6
82.5°	1.3	2.6	2.6	2.6	2.6
85°	1.3	2.6	2.6	2.6	2.6
87.5°	1.3	1.3	2.6	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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