

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: P837643

Luminaire Tested: HCSQ455D010-HM44560835-41SQC

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837643
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: HCSQ455D010-HM44560835-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

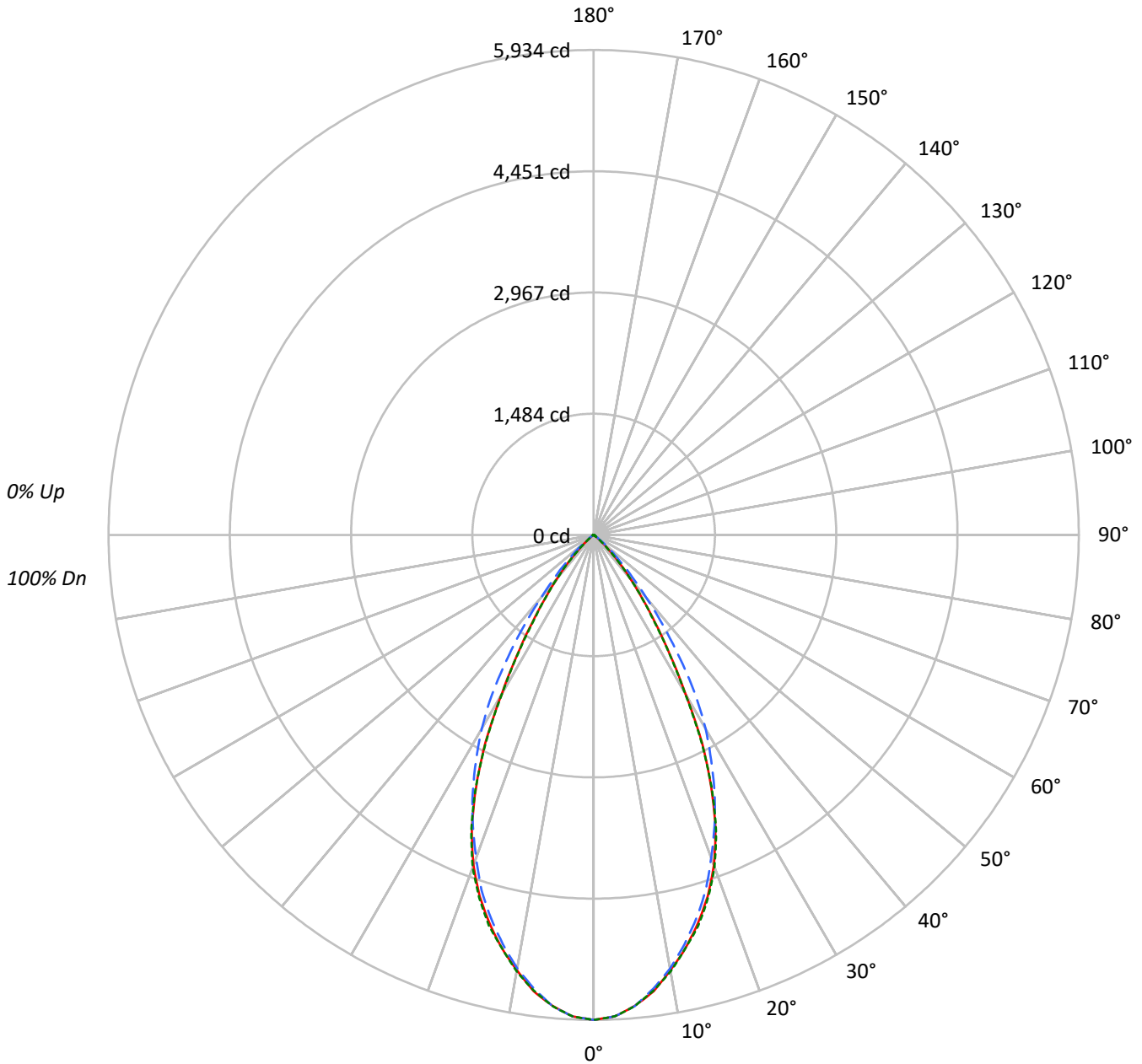
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4795.1 lumens
Efficiency: N/A
Efficacy: 88.8 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): 54
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					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	100	100	100	100		
	1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94	94	94	94	94	94		
	2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87	87	87	87	87	87		
	3	103	96	91	87	101	95	90	87	92	89	85	90	87	84	88	85	83	81	81	81	81	81	81		
	4	98	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76	76	76	76	76	76		
	5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	78	75	72	71	71	71	71	71	71		
	6	88	79	73	69	87	79	73	69	77	72	68	76	71	68	74	70	68	66	66	66	66	66	66		
	7	84	75	69	65	82	74	68	64	73	68	64	71	67	64	70	66	63	62	62	62	62	62	62		
	8	80	70	64	60	79	70	64	60	69	64	60	68	63	60	67	63	60	58	58	58	58	58	58		
	9	76	67	61	57	75	66	60	57	65	60	56	64	60	56	63	59	56	55	55	55	55	55	55		
	10	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	53	52	52	52	52	52	52		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	574830	574830	574830
5°	562507	562740	562740
10°	532053	529692	533480
15°	493671	486912	496329
20°	443154	433226	445886
25°	363972	374533	365265
30°	251600	306021	249721
35°	154925	216161	151223
40°	87398	126386	86791
45°	39923	63350	38265
50°	10158	25410	10520
55°	4881	7735	4476
60°	3274	2790	3739
65°	2751	2201	2751
70°	2039	2039	2719
75°	1797	1797	2695
80°	2678	2678	2678
85°	2668	5335	5335

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 63350 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	539.8	11.3
10°-20°	1363.2	28.4
20°-30°	1558.4	32.5
30°-40°	967.4	20.2
40°-50°	304.8	6.4
50°-60°	39.5	0.8
60°-70°	11.6	0.2
70°-80°	6.2	0.1
80°-90°	4.2	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°	3461.4	72.2
0°-40°	4428.7	92.4
0°-60°	4773.0	99.5
0°-90°	4795.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4795.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5934	5934	5934	5934	5934	
5°	5784	5780	5787	5782	5787	541
15°	4922	4886	4855	4886	4949	1373
25°	3405	3453	3504	3453	3417	1528
35°	1310	1512	1828	1476	1279	842
45°	291	349	462	352	279	246
55°	29	29	46	29	26	29
65°	12	12	10	12	12	12
75°	5	5	5	5	7	6
85°	2	5	5	5	5	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5933.7	5933.7	5933.7	5933.7	5933.7
2.5°	5897.6	5902.4	5897.6	5907.2	5897.6
5°	5784.4	5779.6	5786.8	5782.0	5786.8
7.5°	5630.3	5601.4	5599.0	5618.3	5620.7
10°	5408.7	5401.5	5384.7	5401.5	5423.2
12.5°	5182.4	5153.5	5129.4	5163.1	5182.4
15°	4922.3	4886.2	4854.9	4886.2	4948.8
17.5°	4635.7	4585.2	4558.7	4594.8	4655.0
20°	4298.6	4245.6	4202.3	4233.6	4325.1
22.5°	3894.0	3889.2	3860.3	3877.2	3910.9
25°	3405.1	3453.3	3503.9	3453.3	3417.2
27.5°	2868.1	2998.2	3113.8	2962.0	2846.5
30°	2249.2	2446.7	2735.7	2432.2	2232.4
32.5°	1738.7	1945.8	2314.2	1919.3	1724.2
35°	1310.0	1512.3	1827.8	1476.2	1278.7
37.5°	963.3	1115.0	1389.5	1105.3	963.3
40°	691.1	789.9	999.4	787.5	686.3
42.5°	479.2	544.2	698.4	539.4	464.8
45°	291.4	349.2	462.4	351.6	279.3
47.5°	154.1	221.6	291.4	211.9	154.1
50°	67.4	118.0	168.6	115.6	69.8
52.5°	36.1	50.6	91.5	50.6	36.1
55°	28.9	28.9	45.8	28.9	26.5
57.5°	21.7	21.7	24.1	21.7	21.7
60°	16.9	16.9	14.4	16.9	19.3
62.5°	14.4	14.4	12.0	14.4	14.4
65°	12.0	12.0	9.6	12.0	12.0
67.5°	9.6	9.6	9.6	9.6	9.6
70°	7.2	7.2	7.2	9.6	9.6
72.5°	7.2	7.2	7.2	7.2	7.2
75°	4.8	4.8	4.8	4.8	7.2
77.5°	4.8	4.8	4.8	4.8	4.8
80°	4.8	4.8	4.8	4.8	4.8
82.5°	2.4	4.8	4.8	4.8	4.8
85°	2.4	4.8	4.8	4.8	4.8
87.5°	2.4	2.4	4.8	4.8	4.8
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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