

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: P837245

Luminaire Tested: HCSQ407D010-HM40525835-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837245
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ407D010-HM40525835-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

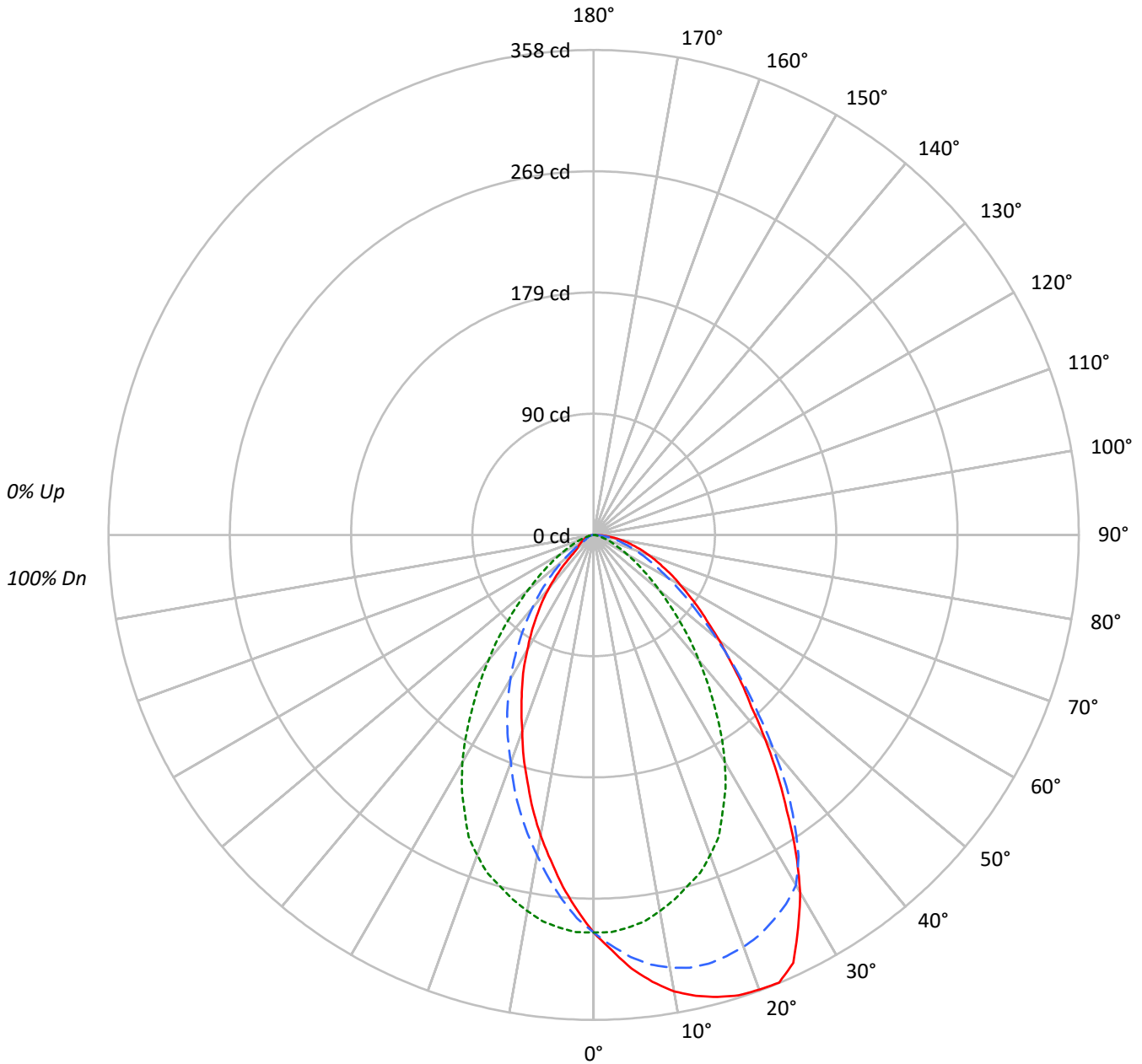
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 474.8 lumens
Efficiency: N/A
Efficacy: 59.3 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 1.04 / 1.12
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 8
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									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	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89																			
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78																			
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69																			
4	89	79	72	67	87	78	71	66	76	70	65	74	69	64	72	67	64	62																			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55																			
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50																			
7	73	61	54	48	71	60	53	48	59	53	48	58	52	48	56	51	47	45																			
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42																			
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38																			
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	28433	28433	28433	28433	28433
5°	31255	30409	28298	26237	25342
10°	33662	31901	27730	23628	22163
15°	35413	32866	26889	21132	18915
20°	36825	33350	25928	18412	15887
25°	37251	33553	24082	16151	13351
30°	34096	33391	21657	13737	10940
35°	29400	30476	18461	11270	8669
40°	24900	26064	15264	8903	6475
45°	21112	21619	12207	6617	4165
50°	18191	17754	9480	4461	2517
55°	16028	14626	7246	2466	2246
60°	14279	12264	5406	1376	2015
65°	13066	10499	4011	1238	1811
70°	12151	9092	2946	1190	1756
75°	11379	7935	2021	1085	1572
80°	10935	6974	1395	1172	1395
85°	10671	6002	889	889	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 21962 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.5	5.8
10°-20°	75.8	16.0
20°-30°	105.9	22.3
30°-40°	103.6	21.8
40°-50°	75.1	15.8
50°-60°	45.3	9.5
60°-70°	25.5	5.4
70°-80°	12.6	2.7
80°-90°	3.4	0.7
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°	209.3	44.1
0°-40°	312.8	65.9
0°-60°	433.3	91.3
0°-90°	474.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	474.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	294	294	294	294	294	
5°	321	313	291	270	261	31
15°	353	328	268	211	189	100
25°	348	314	225	151	125	157
35°	249	258	156	95	73	156
45°	154	158	89	48	30	119
55°	95	87	43	15	13	85
65°	57	46	18	5	8	57
75°	30	21	5	3	4	33
85°	10	5	1	1	1	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	293.5	293.5	293.5	293.5	293.5	293.5	293.5	293.5	293.5
2.5°	306.9	306.0	303.5	298.5	293.5	287.7	283.1	279.8	277.3
5°	321.4	319.8	312.7	302.3	291.0	279.8	269.8	264.0	260.6
7.5°	332.7	329.8	319.8	305.2	287.7	270.6	255.2	246.1	242.3
10°	342.2	337.3	324.3	304.8	281.9	259.4	240.2	229.4	225.3
12.5°	348.5	343.1	327.3	304.4	275.6	248.1	225.7	211.5	207.3
15°	353.1	346.4	327.7	301.0	268.1	236.5	210.7	194.0	188.6
17.5°	356.4	347.2	326.0	297.3	261.5	224.4	195.3	177.4	172.0
20°	357.2	347.2	323.5	291.9	251.5	212.3	178.6	160.7	154.1
22.5°	357.7	346.0	319.8	285.2	241.1	198.6	164.9	146.1	139.1
25°	348.5	341.8	313.9	274.0	225.3	183.6	151.1	130.7	124.9
27.5°	326.8	326.4	307.3	259.0	210.7	167.4	137.0	117.4	112.0
30°	304.8	305.2	298.5	242.3	193.6	152.0	122.8	103.7	97.8
32.5°	277.7	281.9	281.5	223.6	175.3	137.4	109.1	91.2	85.4
35°	248.6	256.1	257.7	202.4	156.1	120.7	95.3	79.1	73.3
37.5°	222.3	229.8	233.6	183.6	138.2	106.2	82.4	68.3	62.5
40°	196.9	203.2	206.1	162.0	120.7	91.2	70.4	57.0	51.2
42.5°	172.4	181.5	180.7	143.6	105.3	79.1	59.5	46.2	40.4
45°	154.1	160.3	157.8	124.5	89.1	66.6	48.3	35.8	30.4
47.5°	135.7	140.3	136.6	108.3	75.4	55.0	39.1	26.2	20.4
50°	120.7	122.8	117.8	92.0	62.9	45.0	29.6	17.5	16.7
52.5°	106.6	107.8	100.8	78.3	52.0	36.2	21.7	13.7	14.6
55°	94.9	94.5	86.6	66.2	42.9	27.9	14.6	12.5	13.3
57.5°	83.7	82.4	74.5	55.0	35.0	21.7	8.7	10.8	11.7
60°	73.7	72.4	63.3	45.4	27.9	16.2	7.1	9.6	10.4
62.5°	65.8	62.9	53.7	37.5	22.5	11.7	6.2	8.3	9.2
65°	57.0	54.5	45.8	30.4	17.5	8.3	5.4	7.1	7.9
67.5°	50.0	47.0	38.7	25.0	14.2	5.8	5.0	6.2	7.1
70°	42.9	40.4	32.1	20.0	10.4	3.7	4.2	5.4	6.2
72.5°	37.1	34.1	26.6	15.8	7.9	2.9	3.7	4.6	5.0
75°	30.4	27.9	21.2	12.1	5.4	2.5	2.9	3.7	4.2
77.5°	25.4	22.9	16.7	9.2	3.7	2.1	2.5	3.3	3.3
80°	19.6	17.5	12.5	6.2	2.5	1.2	2.1	2.5	2.5
82.5°	14.2	12.5	8.7	4.2	1.2	1.2	1.2	1.7	1.7
85°	9.6	8.3	5.4	2.5	0.8	0.8	0.8	0.8	0.8
87.5°	5.4	4.2	2.5	0.8	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



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Scaled Data Report





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

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