

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: P837265

Luminaire Tested: HCSQ407D010-HM40525935-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837265
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-HM40525935-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

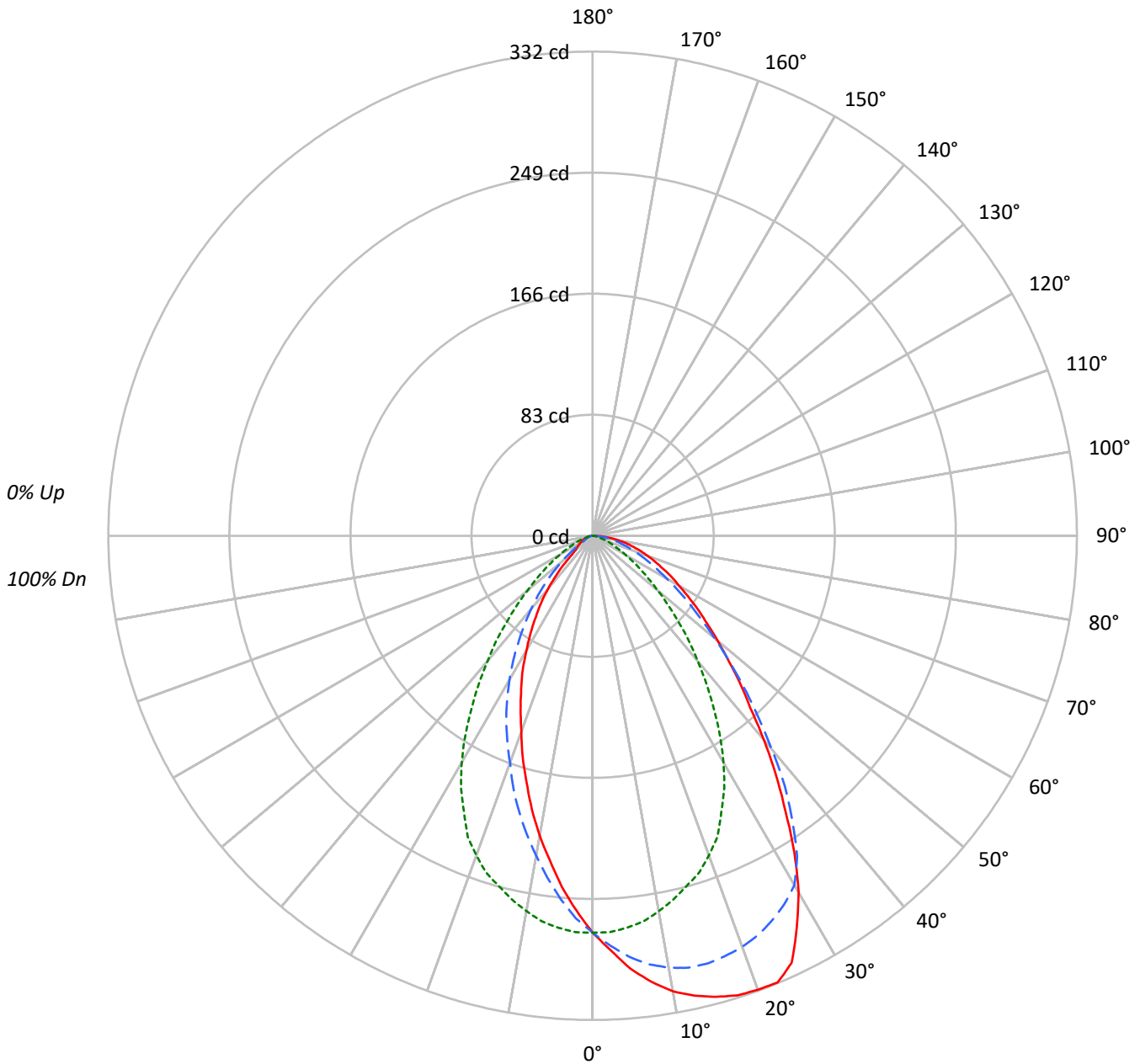
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 440.1 lumens
Efficiency: N/A
Efficacy: 55.0 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°	26360	26360	26360	26360	26360
5°	28979	28191	26237	24321	23495
10°	31213	29580	25704	21907	20540
15°	32826	30459	24933	19587	17531
20°	34144	30917	24031	17072	14722
25°	34526	31105	22319	14975	12378
30°	31601	30952	20079	12741	10146
35°	27248	28253	17113	10454	8030
40°	23092	24154	14151	8245	6007
45°	19564	20043	11316	6138	3863
50°	16865	16458	8786	4129	2321
55°	14863	13562	6722	2280	2094
60°	13233	11373	5018	1279	1860
65°	12126	9742	3713	1146	1673
70°	11273	8412	2719	1105	1643
75°	10555	7374	1871	1011	1460
80°	10098	6471	1283	1060	1283
85°	9893	5558	889	889	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 20359 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.5	5.8
10°-20°	70.2	16.0
20°-30°	98.2	22.3
30°-40°	96.0	21.8
40°-50°	69.7	15.8
50°-60°	42.0	9.5
60°-70°	23.6	5.4
70°-80°	11.7	2.7
80°-90°	3.2	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°	194.0	44.1
0°-40°	290.0	65.9
0°-60°	401.6	91.3
0°-90°	440.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	440.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	272	272	272	272	272	
5°	298	290	270	250	242	29
15°	327	304	249	195	175	93
25°	323	291	209	140	116	146
35°	230	239	145	88	68	144
45°	143	146	83	45	28	111
55°	88	80	40	14	12	79
65°	53	42	16	5	7	53
75°	28	20	5	3	4	30
85°	9	5	1	1	1	10
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°	272.1	272.1	272.1	272.1	272.1	272.1	272.1	272.1	272.1
2.5°	284.5	283.7	281.4	276.7	272.1	266.7	262.5	259.4	257.0
5°	298.0	296.4	289.9	280.2	269.8	259.4	250.1	244.7	241.6
7.5°	308.4	305.7	296.4	282.9	266.7	250.9	236.6	228.1	224.6
10°	317.3	312.6	300.7	282.5	261.3	240.5	222.7	212.7	208.8
12.5°	323.0	318.0	303.4	282.1	255.5	230.0	209.2	196.1	192.2
15°	327.3	321.1	303.7	279.0	248.6	219.2	195.3	179.9	174.8
17.5°	330.4	321.9	302.2	275.6	242.4	208.0	181.0	164.4	159.4
20°	331.2	321.9	299.9	270.6	233.1	196.8	165.6	149.0	142.8
22.5°	331.5	320.7	296.4	264.4	223.5	184.1	152.8	135.5	128.9
25°	323.0	316.9	291.0	254.0	208.8	170.2	140.1	121.2	115.8
27.5°	303.0	302.6	284.8	240.1	195.3	155.2	127.0	108.8	103.8
30°	282.5	282.9	276.7	224.6	179.5	140.9	113.9	96.1	90.7
32.5°	257.4	261.3	260.9	207.3	162.5	127.4	101.1	84.5	79.1
35°	230.4	237.4	238.9	187.6	144.7	111.9	88.4	73.3	67.9
37.5°	206.1	213.0	216.5	170.2	128.1	98.4	76.4	63.3	57.9
40°	182.6	188.3	191.0	150.1	111.9	84.5	65.2	52.9	47.5
42.5°	159.8	168.3	167.5	133.2	97.6	73.3	55.2	42.8	37.4
45°	142.8	148.6	146.3	115.4	82.6	61.8	44.8	33.2	28.2
47.5°	125.8	130.1	126.6	100.3	69.9	50.9	36.3	24.3	18.9
50°	111.9	113.9	109.2	85.3	58.3	41.7	27.4	16.2	15.4
52.5°	98.8	100.0	93.4	72.6	48.2	33.6	20.1	12.7	13.5
55°	88.0	87.6	80.3	61.4	39.8	25.9	13.5	11.6	12.4
57.5°	77.6	76.4	69.1	50.9	32.4	20.1	8.1	10.0	10.8
60°	68.3	67.2	58.7	42.1	25.9	15.1	6.6	8.9	9.6
62.5°	61.0	58.3	49.8	34.7	20.8	10.8	5.8	7.7	8.5
65°	52.9	50.6	42.5	28.2	16.2	7.7	5.0	6.6	7.3
67.5°	46.3	43.6	35.9	23.2	13.1	5.4	4.6	5.8	6.6
70°	39.8	37.4	29.7	18.5	9.6	3.5	3.9	5.0	5.8
72.5°	34.4	31.6	24.7	14.7	7.3	2.7	3.5	4.2	4.6
75°	28.2	25.9	19.7	11.2	5.0	2.3	2.7	3.5	3.9
77.5°	23.5	21.2	15.4	8.5	3.5	1.9	2.3	3.1	3.1
80°	18.1	16.2	11.6	5.8	2.3	1.2	1.9	2.3	2.3
82.5°	13.1	11.6	8.1	3.9	1.2	1.2	1.2	1.5	1.5
85°	8.9	7.7	5.0	2.3	0.8	0.8	0.8	0.8	0.8
87.5°	5.0	3.9	2.3	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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