

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: P837345

Luminaire Tested: HCSQ415D010-HM40525935-41SQLWW

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837345
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: HCSQ415D010-HM40525935-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

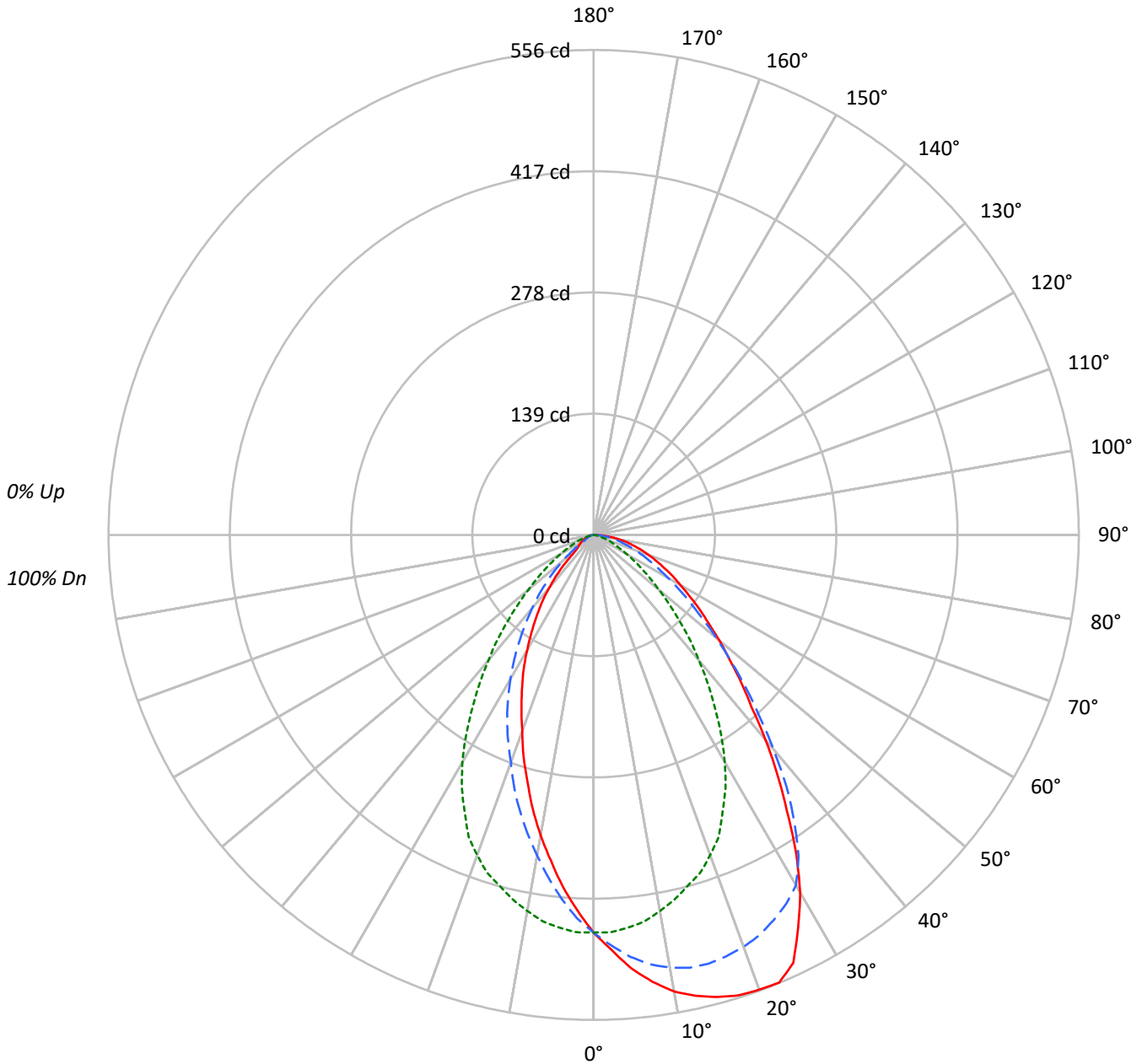
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 737.4 lumens
Efficiency: N/A
Efficacy: 52.7 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): 14
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	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89					89			
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78					78			
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69					69			
4	89	79	72	67	87	78	71	66	76	70	65	74	69	64	72	67	64	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55					55			
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	54	48	71	60	53	48	59	53	48	58	52	48	56	51	47	45					45			
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42					42			
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38					38			
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35					35			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	44166	44166	44166	44166	44166
5°	48545	47222	43955	40746	39365
10°	52293	49549	43066	36702	34410
15°	55001	51039	41762	32816	29376
20°	57196	51804	40268	28598	24670
25°	57860	52120	37390	25087	20737
30°	52956	51870	33637	21343	17003
35°	45661	47341	28679	17515	13458
40°	38685	40480	23712	13822	10054
45°	32785	33579	18961	10275	6467
50°	28258	27580	14709	6918	3903
55°	24895	22717	11249	3817	3496
60°	22184	19046	8389	2131	3139
65°	20309	16298	6235	1926	2819
70°	18864	14106	4589	1841	2747
75°	17667	12352	3144	1684	2433
80°	16960	10823	2176	1785	2176
85°	16562	9337	1445	1445	1445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 34114 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.7	5.8
10°-20°	117.7	16.0
20°-30°	164.6	22.3
30°-40°	160.9	21.8
40°-50°	116.7	15.8
50°-60°	70.4	9.5
60°-70°	39.6	5.4
70°-80°	19.6	2.7
80°-90°	5.4	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°	325.0	44.1
0°-40°	485.9	65.9
0°-60°	672.9	91.3
0°-90°	737.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	737.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	456	456	456	456	456	
5°	499	486	452	419	405	49
15°	548	509	416	327	293	155
25°	541	488	350	235	194	244
35°	386	400	242	148	114	242
45°	239	245	138	75	47	186
55°	147	134	67	23	21	133
65°	89	71	27	8	12	89
75°	47	33	8	4	6	51
85°	15	8	1	1	1	16
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°	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9
2.5°	476.6	475.3	471.4	463.7	455.9	446.8	439.7	434.6	430.7
5°	499.2	496.6	485.6	469.5	452.0	434.6	419.0	410.0	404.8
7.5°	516.7	512.2	496.6	474.0	446.8	420.3	396.4	382.2	376.4
10°	531.6	523.8	503.7	473.4	437.8	402.9	373.1	356.3	349.8
12.5°	541.3	532.8	508.3	472.7	428.1	385.4	350.5	328.5	322.0
15°	548.4	538.0	508.9	467.5	416.4	367.3	327.2	301.3	292.9
17.5°	553.5	539.3	506.3	461.7	406.1	348.5	303.3	275.5	267.1
20°	554.8	539.3	502.5	453.3	390.6	329.8	277.4	249.6	239.3
22.5°	555.5	537.4	496.6	443.0	374.4	308.5	256.1	227.0	216.0
25°	541.3	530.9	487.6	425.5	349.8	285.2	234.7	203.1	194.0
27.5°	507.6	507.0	477.2	402.2	327.2	260.0	212.8	182.4	174.0
30°	473.4	474.0	463.7	376.4	300.7	236.0	190.8	161.0	152.0
32.5°	431.3	437.8	437.1	347.3	272.2	213.4	169.4	141.6	132.6
35°	386.1	397.7	400.3	314.3	242.5	187.5	148.1	122.9	113.8
37.5°	345.3	357.0	362.8	285.2	214.7	164.9	128.0	106.1	97.0
40°	305.9	315.6	320.1	251.6	187.5	141.6	109.3	88.6	79.5
42.5°	267.7	281.9	280.6	223.1	163.6	122.9	92.5	71.8	62.7
45°	239.3	249.0	245.1	193.4	138.4	103.5	75.0	55.6	47.2
47.5°	210.8	217.9	212.1	168.1	117.0	85.4	60.8	40.7	31.7
50°	187.5	190.8	183.0	142.9	97.6	69.8	45.9	27.2	25.9
52.5°	165.5	167.5	156.5	121.6	80.8	56.3	33.6	21.3	22.6
55°	147.4	146.8	134.5	102.8	66.6	43.3	22.6	19.4	20.7
57.5°	130.0	128.0	115.8	85.4	54.3	33.6	13.6	16.8	18.1
60°	114.5	112.5	98.3	70.5	43.3	25.2	11.0	14.9	16.2
62.5°	102.2	97.6	83.4	58.2	34.9	18.1	9.7	12.9	14.2
65°	88.6	84.7	71.1	47.2	27.2	12.9	8.4	11.0	12.3
67.5°	77.6	73.1	60.1	38.8	22.0	9.1	7.8	9.7	11.0
70°	66.6	62.7	49.8	31.0	16.2	5.8	6.5	8.4	9.7
72.5°	57.6	53.0	41.4	24.6	12.3	4.5	5.8	7.1	7.8
75°	47.2	43.3	33.0	18.8	8.4	3.9	4.5	5.8	6.5
77.5°	39.4	35.6	25.9	14.2	5.8	3.2	3.9	5.2	5.2
80°	30.4	27.2	19.4	9.7	3.9	1.9	3.2	3.9	3.9
82.5°	22.0	19.4	13.6	6.5	1.9	1.9	1.9	2.6	2.6
85°	14.9	12.9	8.4	3.9	1.3	1.3	1.3	1.3	1.3
87.5°	8.4	6.5	3.9	1.3	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

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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