

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: P837395

Luminaire Tested: HCSQ425D010-HM40525827-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837395
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: HCSQ425D010-HM40525827-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

Summary

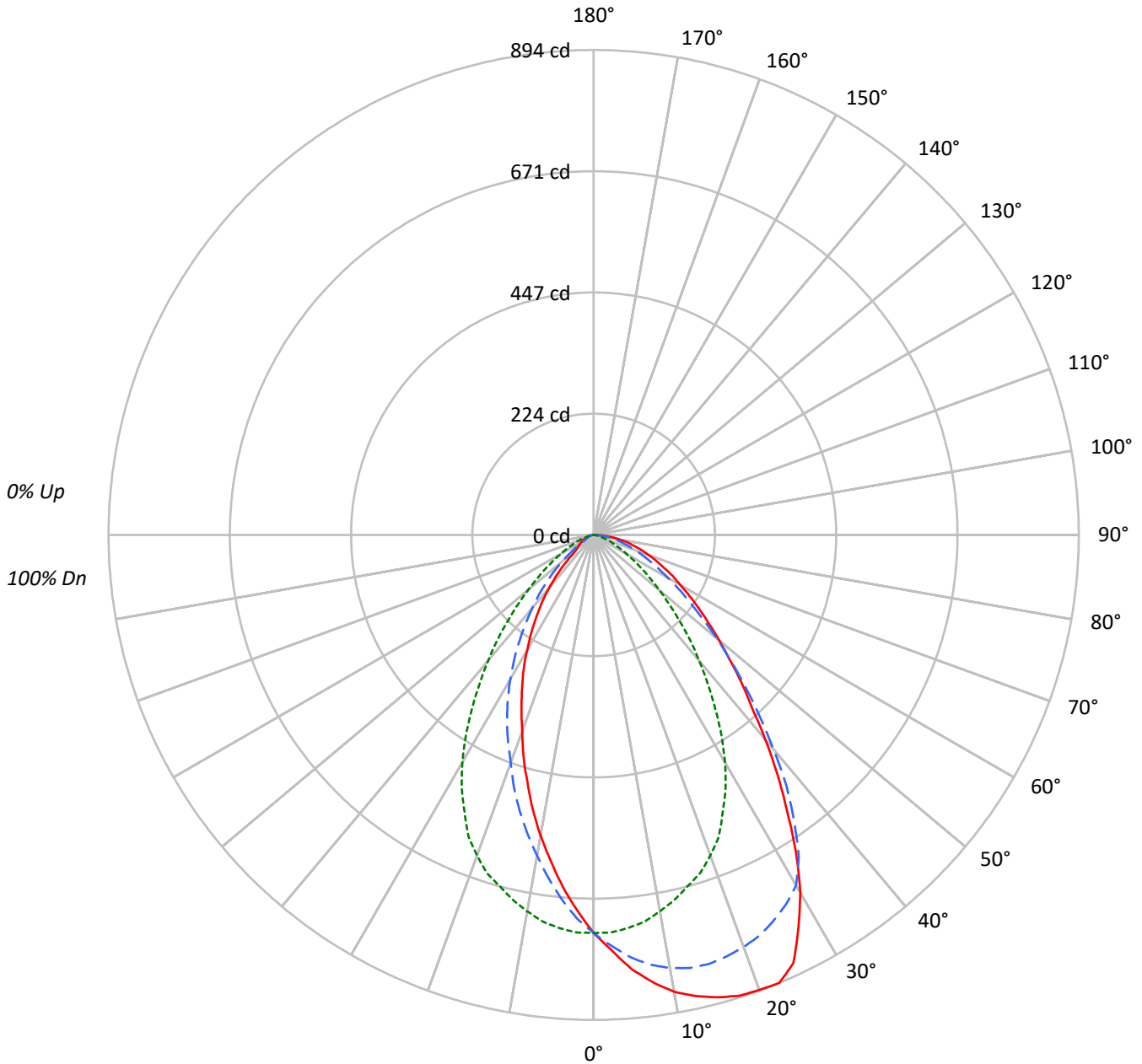
Lumens per Lamp: N/A
Luminaire Lumens: 1186.6 lumens
Efficiency: N/A
Efficacy: 42.8 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 1.04 / 1.12
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 27.7
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	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°	71068	71068	71068	71068	71068
5°	78117	75997	70736	65573	63346
10°	84136	79739	69302	59061	55372
15°	88498	82130	67206	52804	47278
20°	92041	83350	64794	46021	39691
25°	93101	83866	60168	40372	33371
30°	85205	83460	54130	34342	27350
35°	73465	76173	46146	28182	21654
40°	62245	65141	38166	22245	16187
45°	52746	54034	30510	16536	10412
50°	45485	44385	23677	11138	6270
55°	40062	36549	18106	6148	5624
60°	35689	30651	13504	3429	5038
65°	32688	26246	10017	3095	4539
70°	30364	22688	7364	2946	4419
75°	28447	19875	5053	2732	3893
80°	27280	17406	3459	2901	3459
85°	26565	15006	2334	2334	2334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 54883 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	5.8
10°-20°	189.4	16.0
20°-30°	264.8	22.3
30°-40°	258.8	21.8
40°-50°	187.8	15.8
50°-60°	113.2	9.5
60°-70°	63.6	5.4
70°-80°	31.5	2.7
80°-90°	8.6	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°	523.0	44.1
0°-40°	781.8	65.9
0°-60°	1082.8	91.3
0°-90°	1186.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1186.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	734	734	734	734	734	
5°	803	782	727	674	651	78
15°	882	819	670	526	471	250
25°	871	785	563	378	312	393
35°	621	644	390	238	183	389
45°	385	394	223	121	76	299
55°	237	216	107	36	33	213
65°	143	114	44	14	20	143
75°	76	53	14	7	10	82
85°	24	14	2	2	2	26
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°	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6
2.5°	766.9	764.8	758.6	746.1	733.6	719.0	707.6	699.3	693.0
5°	803.3	799.2	781.5	755.5	727.4	699.3	674.3	659.7	651.4
7.5°	831.4	824.1	799.2	762.7	719.0	676.4	637.9	615.0	605.6
10°	855.3	842.9	810.6	761.7	704.5	648.3	600.4	573.4	562.9
12.5°	871.0	857.4	817.9	760.7	688.9	620.2	564.0	528.6	518.2
15°	882.4	865.7	818.9	752.3	670.1	591.0	526.5	484.9	471.4
17.5°	890.7	867.8	814.8	743.0	653.5	560.9	488.0	443.3	429.8
20°	892.8	867.8	808.5	729.4	628.5	530.7	446.4	401.7	385.0
22.5°	893.8	864.7	799.2	712.8	602.5	496.3	412.1	365.2	347.5
25°	871.0	854.3	784.6	684.7	562.9	458.9	377.7	326.7	312.2
27.5°	816.8	815.8	767.9	647.2	526.5	418.3	342.3	293.4	279.9
30°	761.7	762.7	746.1	605.6	483.9	379.8	307.0	259.1	244.5
32.5°	694.1	704.5	703.4	558.8	438.1	343.4	272.6	227.9	213.3
35°	621.2	639.9	644.1	505.7	390.2	301.8	238.3	197.7	183.1
37.5°	555.7	574.4	583.8	458.9	345.5	265.3	206.0	170.7	156.1
40°	492.2	507.8	515.1	404.8	301.8	227.9	175.9	142.6	128.0
42.5°	430.8	453.7	451.6	359.0	263.3	197.7	148.8	115.5	100.9
45°	385.0	400.6	394.4	311.1	222.7	166.5	120.7	89.5	76.0
47.5°	339.2	350.7	341.3	270.5	188.3	137.4	97.8	65.6	51.0
50°	301.8	307.0	294.5	230.0	157.1	112.4	73.9	43.7	41.6
52.5°	266.4	269.5	251.8	195.6	130.1	90.5	54.1	34.3	36.4
55°	237.2	236.2	216.4	165.4	107.2	69.7	36.4	31.2	33.3
57.5°	209.2	206.0	186.3	137.4	87.4	54.1	21.9	27.1	29.1
60°	184.2	181.1	158.2	113.4	69.7	40.6	17.7	23.9	26.0
62.5°	164.4	157.1	134.2	93.7	56.2	29.1	15.6	20.8	22.9
65°	142.6	136.3	114.5	76.0	43.7	20.8	13.5	17.7	19.8
67.5°	124.9	117.6	96.8	62.4	35.4	14.6	12.5	15.6	17.7
70°	107.2	100.9	80.1	49.9	26.0	9.4	10.4	13.5	15.6
72.5°	92.6	85.3	66.6	39.5	19.8	7.3	9.4	11.4	12.5
75°	76.0	69.7	53.1	30.2	13.5	6.2	7.3	9.4	10.4
77.5°	63.5	57.2	41.6	22.9	9.4	5.2	6.2	8.3	8.3
80°	48.9	43.7	31.2	15.6	6.2	3.1	5.2	6.2	6.2
82.5°	35.4	31.2	21.9	10.4	3.1	3.1	3.1	4.2	4.2
85°	23.9	20.8	13.5	6.2	2.1	2.1	2.1	2.1	2.1
87.5°	13.5	10.4	6.2	2.1	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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