

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: P837415

Luminaire Tested: HCSQ425D010-HM40525927-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837415
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-HM40525927-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

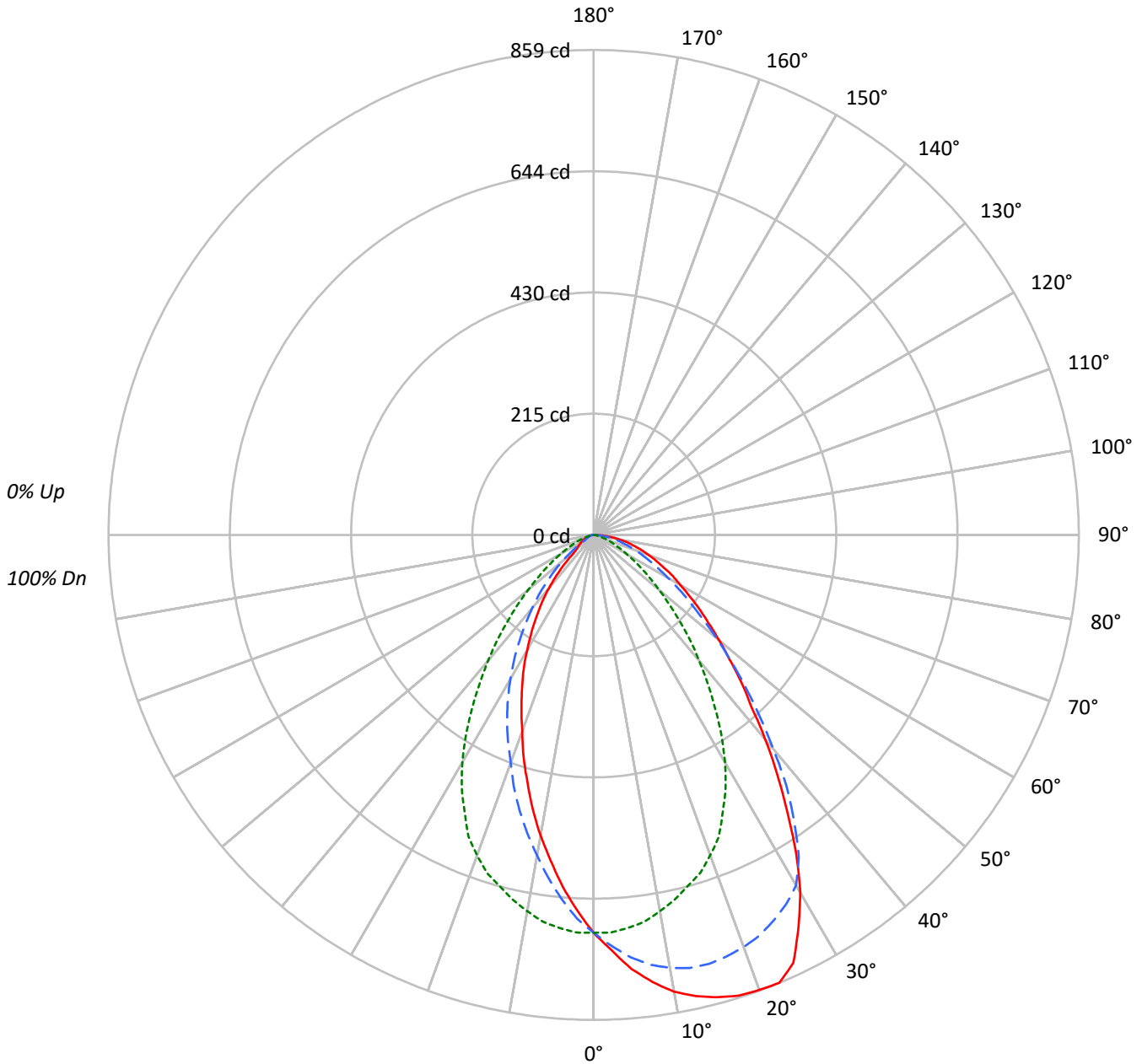
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1140.0 lumens
Efficiency: N/A
Efficacy: 41.2 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	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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89	89	89	89	89	89		
	2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78	78	78	78	78	78		
	3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69	69	69	69	69	69		
	4	89	79	72	67	87	78	71	66	76	70	65	74	69	64	72	67	64	62	62	62	62	62	62		
	5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55	55	55	55	55	55		
	6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50	50	50	50	50	50		
	7	73	61	54	48	71	60	53	48	59	53	48	58	52	48	56	51	47	45	45	45	45	45	45		
	8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42	42	42	42	42	42		
	9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38	38	38	38	38	38		
	10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35	35	35	35	35	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	68278	68278	68278	68278	68278
5°	75054	73012	67955	62996	60856
10°	80831	76610	66577	56740	53198
15°	85018	78910	64569	50728	45423
20°	88423	80082	62247	44216	38134
25°	89435	80574	57806	38790	32056
30°	81861	80183	52005	32988	26276
35°	70579	73181	44337	27070	20802
40°	59804	62573	36661	21359	15555
45°	50677	51910	29305	15892	10001
50°	43691	42636	22757	10701	6028
55°	38492	35114	17396	5911	5405
60°	34275	29450	12981	3294	4844
65°	31404	25215	9628	2980	4355
70°	29174	21810	7081	2832	4249
75°	27324	19089	4866	2620	3743
80°	26221	16737	3347	2789	3347
85°	25565	14450	2223	2223	2223

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 52732 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.1	5.8
10°-20°	181.9	16.0
20°-30°	254.4	22.3
30°-40°	248.7	21.8
40°-50°	180.4	15.8
50°-60°	108.8	9.5
60°-70°	61.2	5.4
70°-80°	30.3	2.7
80°-90°	8.3	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°	502.4	44.1
0°-40°	751.1	65.9
0°-60°	1040.3	91.3
0°-90°	1140.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1140.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	705	705	705	705	705	
5°	772	751	699	648	626	75
15°	848	787	644	506	453	240
25°	837	754	541	363	300	377
35°	597	619	375	229	176	374
45°	370	379	214	116	73	287
55°	228	208	103	35	32	205
65°	137	110	42	13	19	137
75°	73	51	13	7	10	79
85°	23	13	2	2	2	25
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°	704.8	704.8	704.8	704.8	704.8	704.8	704.8	704.8	704.8
2.5°	736.8	734.8	728.8	716.8	704.8	690.8	679.8	671.8	665.8
5°	771.8	767.8	750.8	725.8	698.8	671.8	647.8	633.8	625.8
7.5°	798.7	791.8	767.8	732.8	690.8	649.8	612.8	590.8	581.8
10°	821.7	809.7	778.8	731.8	676.8	622.8	576.8	550.8	540.8
12.5°	836.7	823.7	785.8	730.8	661.8	595.8	541.8	507.8	497.8
15°	847.7	831.7	786.8	722.8	643.8	567.8	505.8	465.9	452.9
17.5°	855.7	833.7	782.8	713.8	627.8	538.8	468.9	425.9	412.9
20°	857.7	833.7	776.8	700.8	603.8	509.8	428.9	385.9	369.9
22.5°	858.7	830.7	767.8	684.8	578.8	476.8	395.9	350.9	333.9
25°	836.7	820.7	753.8	657.8	540.8	440.9	362.9	313.9	299.9
27.5°	784.8	783.8	737.8	621.8	505.8	401.9	328.9	281.9	268.9
30°	731.8	732.8	716.8	581.8	464.9	364.9	294.9	248.9	234.9
32.5°	666.8	676.8	675.8	536.8	420.9	329.9	261.9	218.9	204.9
35°	596.8	614.8	618.8	485.8	374.9	289.9	228.9	189.9	175.9
37.5°	533.8	551.8	560.8	440.9	331.9	254.9	197.9	163.9	150.0
40°	472.9	487.8	494.8	388.9	289.9	218.9	168.9	137.0	123.0
42.5°	413.9	435.9	433.9	344.9	252.9	189.9	143.0	111.0	97.0
45°	369.9	384.9	378.9	298.9	213.9	159.9	116.0	86.0	73.0
47.5°	325.9	336.9	327.9	259.9	180.9	132.0	94.0	63.0	49.0
50°	289.9	294.9	282.9	220.9	151.0	108.0	71.0	42.0	40.0
52.5°	255.9	258.9	241.9	187.9	125.0	87.0	52.0	33.0	35.0
55°	227.9	226.9	207.9	158.9	103.0	67.0	35.0	30.0	32.0
57.5°	200.9	197.9	178.9	132.0	84.0	52.0	21.0	26.0	28.0
60°	176.9	173.9	152.0	109.0	67.0	39.0	17.0	23.0	25.0
62.5°	158.0	151.0	129.0	90.0	54.0	28.0	15.0	20.0	22.0
65°	137.0	131.0	110.0	73.0	42.0	20.0	13.0	17.0	19.0
67.5°	120.0	113.0	93.0	60.0	34.0	14.0	12.0	15.0	17.0
70°	103.0	97.0	77.0	48.0	25.0	9.0	10.0	13.0	15.0
72.5°	89.0	82.0	64.0	38.0	19.0	7.0	9.0	11.0	12.0
75°	73.0	67.0	51.0	29.0	13.0	6.0	7.0	9.0	10.0
77.5°	61.0	55.0	40.0	22.0	9.0	5.0	6.0	8.0	8.0
80°	47.0	42.0	30.0	15.0	6.0	3.0	5.0	6.0	6.0
82.5°	34.0	30.0	21.0	10.0	3.0	3.0	3.0	4.0	4.0
85°	23.0	20.0	13.0	6.0	2.0	2.0	2.0	2.0	2.0
87.5°	13.0	10.0	6.0	2.0	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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— 0°-180° - - 45°-225° - - - - 90°-270°

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