

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: P837460

Luminaire Tested: HCSQ430D010-HM43040930-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837460
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: HCSQ430D010-HM43040930-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

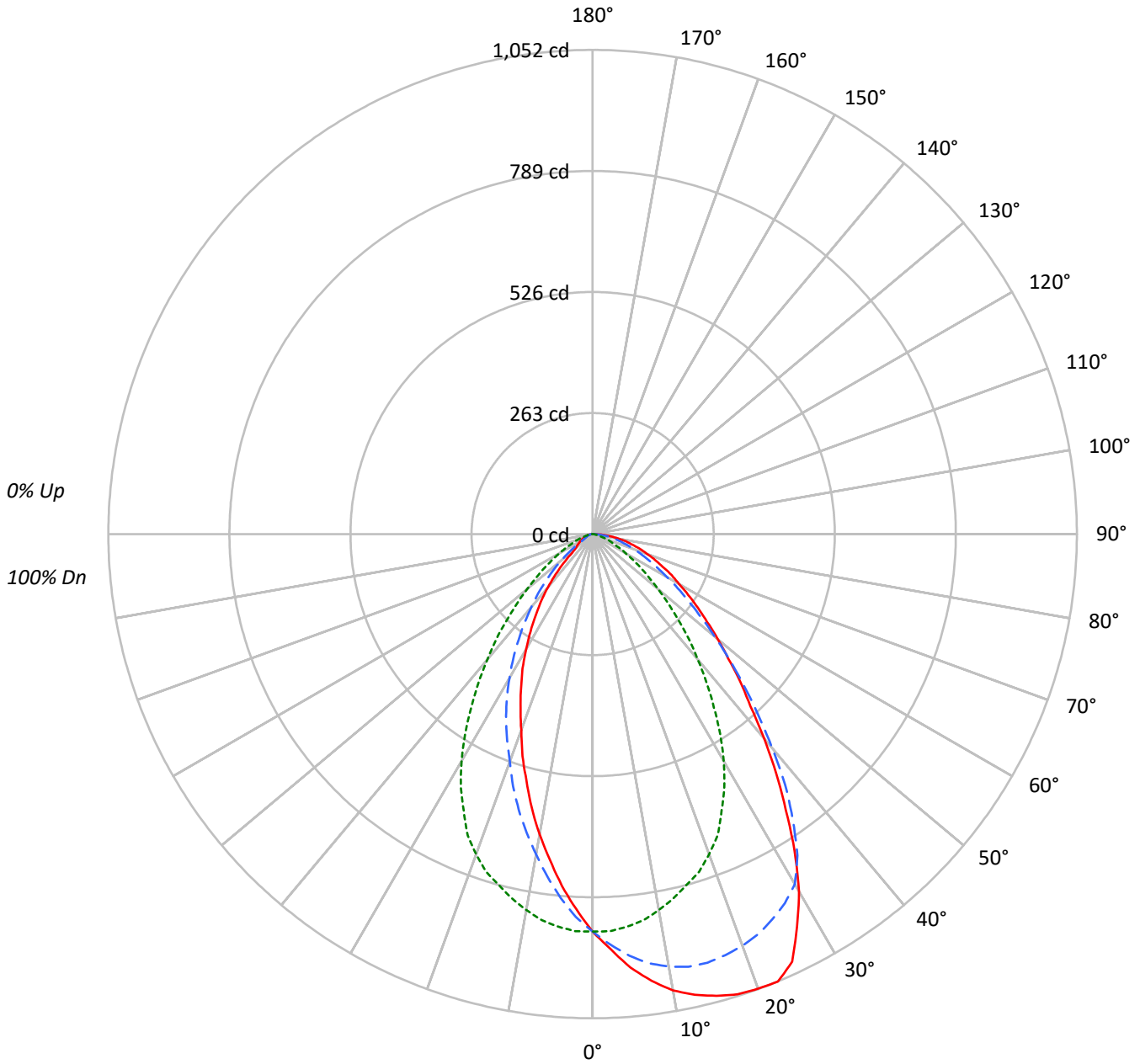
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1396.8 lumens
Efficiency: N/A
Efficacy: 49.5 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): 28.2
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°	83662	83662	83662	83662	83662
5°	91955	89456	83262	77193	74568
10°	99049	93865	81578	69528	65190
15°	104174	96682	79121	62161	55652
20°	108350	98124	76278	54175	46722
25°	109595	98724	70836	47523	39282
30°	100296	98248	63717	40427	32205
35°	86486	89667	54318	33173	25498
40°	73272	76674	44919	26178	19058
45°	62090	63597	35908	19468	12248
50°	53533	52252	27882	13112	7385
55°	47173	43035	21315	7246	6621
60°	42005	36076	15907	4030	5929
65°	38464	30877	11782	3645	5341
70°	35745	26710	8667	3456	5212
75°	33462	23394	5951	3219	4566
80°	32134	20474	4073	3403	4073
85°	31345	17673	2668	2668	2668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 64610 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.0	5.8
10°-20°	222.9	16.0
20°-30°	311.7	22.3
30°-40°	304.7	21.8
40°-50°	221.1	15.8
50°-60°	133.3	9.5
60°-70°	74.9	5.4
70°-80°	37.1	2.7
80°-90°	10.1	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°	615.6	44.1
0°-40°	920.3	65.9
0°-60°	1274.7	91.3
0°-90°	1396.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1396.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	864	864	864	864	864	
5°	946	920	856	794	767	92
15°	1039	964	789	620	555	294
25°	1025	924	663	445	368	462
35°	731	758	459	280	216	458
45°	453	464	262	142	89	351
55°	279	255	126	43	39	251
65°	168	135	51	16	23	168
75°	89	62	16	9	12	96
85°	28	16	2	2	2	31
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°	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6
2.5°	902.8	900.3	893.0	878.3	863.6	846.4	832.9	823.1	815.8
5°	945.6	940.7	919.9	889.3	856.2	823.1	793.8	776.6	766.8
7.5°	978.7	970.1	940.7	897.9	846.4	796.2	750.9	723.9	712.9
10°	1006.9	992.2	954.2	896.6	829.3	763.1	706.8	674.9	662.7
12.5°	1025.3	1009.3	962.8	895.4	810.9	730.1	663.9	622.3	610.0
15°	1038.7	1019.1	964.0	885.6	788.9	695.8	619.8	570.8	554.9
17.5°	1048.5	1021.6	959.1	874.6	769.3	660.2	574.5	521.8	505.9
20°	1051.0	1021.6	951.8	858.7	739.9	624.7	525.5	472.8	453.2
22.5°	1052.2	1017.9	940.7	839.1	709.2	584.3	485.1	429.9	409.1
25°	1025.3	1005.7	923.6	806.0	662.7	540.2	444.6	384.6	367.5
27.5°	961.6	960.3	904.0	761.9	619.8	492.4	403.0	345.4	329.5
30°	896.6	897.9	878.3	712.9	569.6	447.1	361.4	305.0	287.9
32.5°	817.0	829.3	828.0	657.8	515.7	404.2	320.9	268.3	251.1
35°	731.3	753.3	758.2	595.3	459.3	355.2	280.5	232.7	215.6
37.5°	654.1	676.2	687.2	540.2	406.7	312.4	242.5	200.9	183.7
40°	579.4	597.8	606.3	476.5	355.2	268.3	207.0	167.8	150.7
42.5°	507.1	534.1	531.6	422.6	309.9	232.7	175.2	136.0	118.8
45°	453.2	471.6	464.2	366.3	262.1	196.0	142.1	105.3	89.4
47.5°	399.3	412.8	401.8	318.5	221.7	161.7	115.1	77.2	60.0
50°	355.2	361.4	346.7	270.7	185.0	132.3	87.0	51.4	49.0
52.5°	313.6	317.3	296.4	230.3	153.1	106.6	63.7	40.4	42.9
55°	279.3	278.1	254.8	194.8	126.2	82.1	42.9	36.7	39.2
57.5°	246.2	242.5	219.3	161.7	102.9	63.7	25.7	31.8	34.3
60°	216.8	213.1	186.2	133.5	82.1	47.8	20.8	28.2	30.6
62.5°	193.5	185.0	158.0	110.2	66.1	34.3	18.4	24.5	26.9
65°	167.8	160.5	134.7	89.4	51.4	24.5	15.9	20.8	23.3
67.5°	147.0	138.4	113.9	73.5	41.6	17.1	14.7	18.4	20.8
70°	126.2	118.8	94.3	58.8	30.6	11.0	12.2	15.9	18.4
72.5°	109.0	100.4	78.4	46.5	23.3	8.6	11.0	13.5	14.7
75°	89.4	82.1	62.5	35.5	15.9	7.3	8.6	11.0	12.2
77.5°	74.7	67.4	49.0	26.9	11.0	6.1	7.3	9.8	9.8
80°	57.6	51.4	36.7	18.4	7.3	3.7	6.1	7.3	7.3
82.5°	41.6	36.7	25.7	12.2	3.7	3.7	3.7	4.9	4.9
85°	28.2	24.5	15.9	7.3	2.4	2.4	2.4	2.4	2.4
87.5°	15.9	12.2	7.3	2.4	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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