

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: P837450

Luminaire Tested: HCSQ430D010-HM43040840-41SQLWW

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837450
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-HM43040840-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

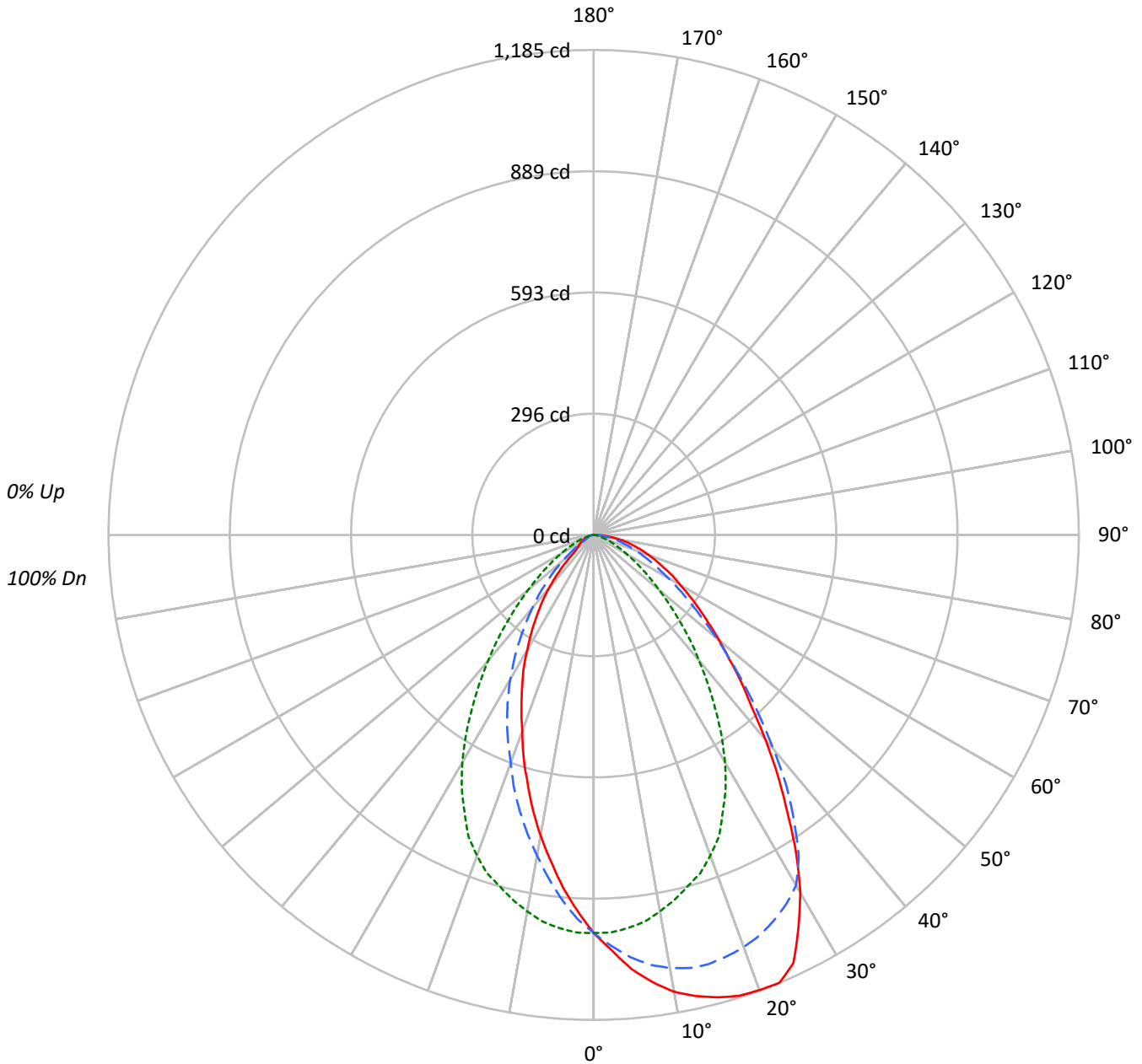
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1573.0 lumens
Efficiency: N/A
Efficacy: 55.8 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): 28.2
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										
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°	94211	94211	94211	94211	94211
5°	103557	100737	93764	86918	83971
10°	111542	105698	91858	78293	73404
15°	117313	108878	89090	70004	62673
20°	122010	110495	85897	61010	52619
25°	123405	111177	79761	53520	44231
30°	112947	110632	71748	45517	36266
35°	97390	100973	61177	37359	28714
40°	82516	86348	50585	29478	21461
45°	69926	71625	40443	21920	13796
50°	60285	58838	31393	14755	8319
55°	53118	48457	24000	8158	7448
60°	47314	40630	17903	4534	6684
65°	43324	34774	13272	4103	6006
70°	40249	30081	9772	3909	5863
75°	37692	26313	6700	3631	5165
80°	36151	23096	4630	3849	4630
85°	35235	19896	3112	3112	3112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 72762 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.2	5.8
10°-20°	251.1	16.0
20°-30°	351.0	22.3
30°-40°	343.1	21.8
40°-50°	249.0	15.8
50°-60°	150.1	9.5
60°-70°	84.4	5.4
70°-80°	41.8	2.7
80°-90°	11.4	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°	693.2	44.1
0°-40°	1036.4	65.9
0°-60°	1435.4	91.3
0°-90°	1573.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1573.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	972	972	972	972	972	
5°	1065	1036	964	894	864	104
15°	1170	1086	888	698	625	331
25°	1154	1040	746	501	414	520
35°	824	854	517	316	243	516
45°	510	523	295	160	101	396
55°	314	287	142	48	44	283
65°	189	152	58	18	26	189
75°	101	70	18	10	14	108
85°	32	18	3	3	3	35
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°	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5	972.5
2.5°	1016.6	1013.9	1005.6	989.0	972.5	953.2	938.0	926.9	918.7
5°	1064.9	1059.4	1035.9	1001.4	964.2	926.9	893.8	874.5	863.5
7.5°	1102.1	1092.5	1059.4	1011.1	953.2	896.6	845.6	815.2	802.8
10°	1133.9	1117.3	1074.5	1009.7	933.8	859.4	795.9	760.0	746.2
12.5°	1154.5	1136.6	1084.2	1008.3	913.2	822.1	747.6	700.7	686.9
15°	1169.7	1147.7	1085.6	997.3	888.3	783.5	698.0	642.8	624.9
17.5°	1180.8	1150.4	1080.1	984.9	866.3	743.5	646.9	587.6	569.7
20°	1183.5	1150.4	1071.8	967.0	833.2	703.5	591.8	532.4	510.4
22.5°	1184.9	1146.3	1059.4	944.9	798.7	658.0	546.2	484.2	460.7
25°	1154.5	1132.5	1040.1	907.6	746.2	608.3	500.7	433.1	413.8
27.5°	1082.8	1081.4	1018.0	858.0	698.0	554.5	453.8	389.0	371.1
30°	1009.7	1011.1	989.0	802.8	641.4	503.5	406.9	343.5	324.2
32.5°	920.1	933.8	932.5	740.7	580.7	455.2	361.4	302.1	282.8
35°	823.5	848.3	853.8	670.4	517.3	400.0	315.9	262.1	242.8
37.5°	736.6	761.4	773.8	608.3	458.0	351.7	273.1	226.2	206.9
40°	652.5	673.1	682.8	536.6	400.0	302.1	233.1	189.0	169.7
42.5°	571.1	601.4	598.7	475.9	349.0	262.1	197.3	153.1	133.8
45°	510.4	531.1	522.8	412.4	295.2	220.7	160.0	118.6	100.7
47.5°	449.7	464.9	452.4	358.6	249.7	182.1	129.7	86.9	67.6
50°	400.0	406.9	390.4	304.8	208.3	149.0	97.9	57.9	55.2
52.5°	353.1	357.3	333.8	259.3	172.4	120.0	71.7	45.5	48.3
55°	314.5	313.1	286.9	219.3	142.1	92.4	48.3	41.4	44.1
57.5°	277.3	273.1	246.9	182.1	115.9	71.7	29.0	35.9	38.6
60°	244.2	240.0	209.7	150.4	92.4	53.8	23.4	31.7	34.5
62.5°	217.9	208.3	177.9	124.1	74.5	38.6	20.7	27.6	30.3
65°	189.0	180.7	151.7	100.7	57.9	27.6	17.9	23.4	26.2
67.5°	165.5	155.9	128.3	82.8	46.9	19.3	16.6	20.7	23.4
70°	142.1	133.8	106.2	66.2	34.5	12.4	13.8	17.9	20.7
72.5°	122.8	113.1	88.3	52.4	26.2	9.7	12.4	15.2	16.6
75°	100.7	92.4	70.3	40.0	17.9	8.3	9.7	12.4	13.8
77.5°	84.1	75.9	55.2	30.3	12.4	6.9	8.3	11.0	11.0
80°	64.8	57.9	41.4	20.7	8.3	4.1	6.9	8.3	8.3
82.5°	46.9	41.4	29.0	13.8	4.1	4.1	4.1	5.5	5.5
85°	31.7	27.6	17.9	8.3	2.8	2.8	2.8	2.8	2.8
87.5°	17.9	13.8	8.3	2.8	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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