

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: P837475

Luminaire Tested: HCSQ435D010-HM43040827-41SQLWW

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837475
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: HCSQ435D010-HM43040827-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

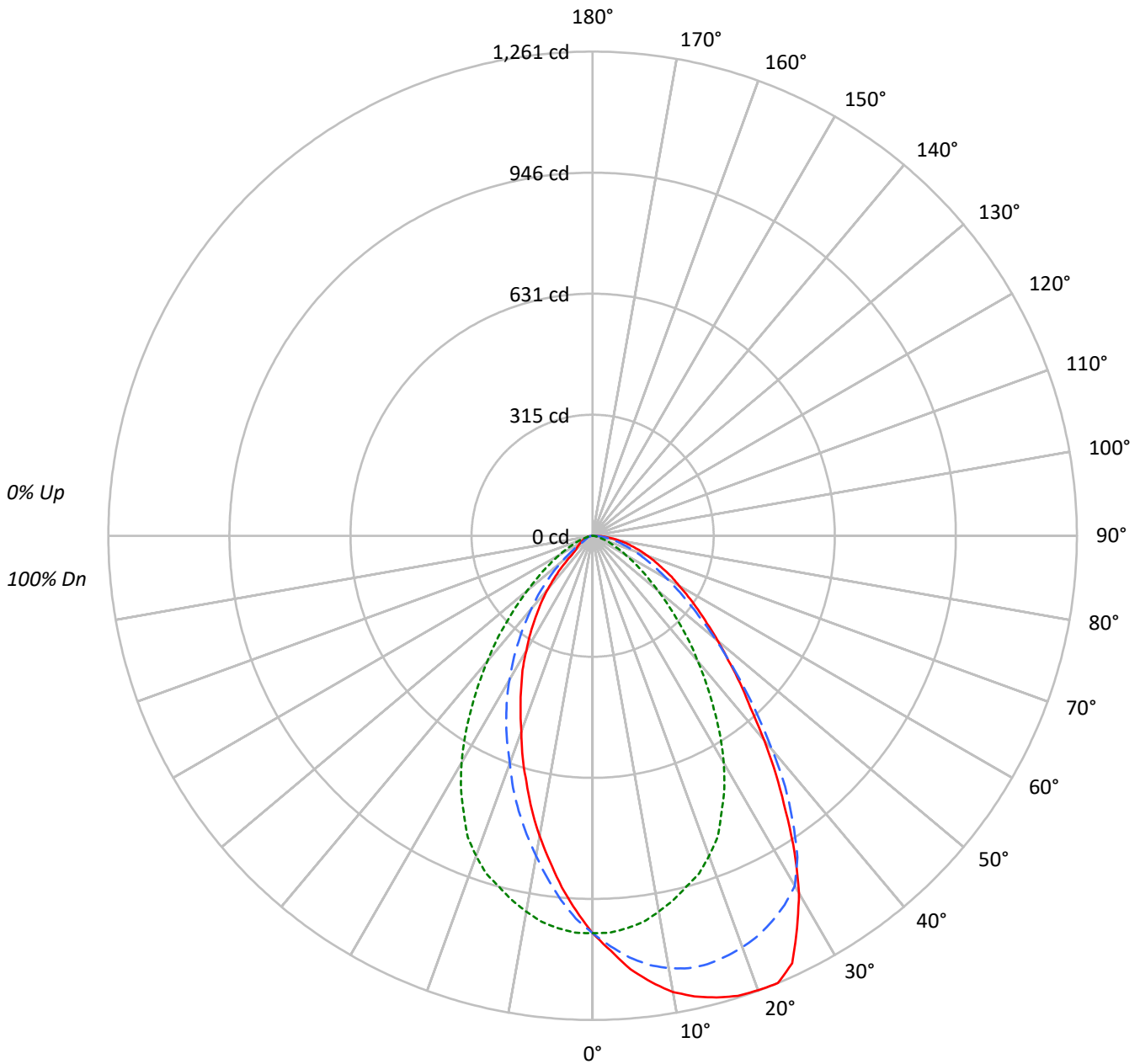
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1674.1 lumens
Efficiency: N/A
Efficacy: 49.2 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): 34
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°	100256	100256	100256	100256	100256
5°	110208	107213	99784	92510	89369
10°	118703	112496	97760	83319	78125
15°	124855	115868	94817	74498	66695
20°	129856	117588	91412	64928	56000
25°	131336	118317	84892	56962	47074
30°	120207	117746	76357	48447	38592
35°	103646	107466	65104	39760	30559
40°	87815	91900	53835	31375	22839
45°	74420	76228	43046	23332	14687
50°	64158	62606	33413	15704	8847
55°	56530	51564	25537	8681	7938
60°	50336	43226	19065	4844	7111
65°	46098	37020	14143	4378	6395
70°	42827	32007	10395	4164	6231
75°	40125	28035	7149	3855	5502
80°	38494	24547	4909	4073	4909
85°	37569	21230	3223	3223	3223

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 77434 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.0	5.8
10°-20°	267.2	16.0
20°-30°	373.6	22.3
30°-40°	365.2	21.8
40°-50°	265.0	15.8
50°-60°	159.7	9.5
60°-70°	89.8	5.4
70°-80°	44.5	2.7
80°-90°	12.2	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°	737.8	44.1
0°-40°	1102.9	65.9
0°-60°	1527.6	91.3
0°-90°	1674.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1674.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1035	1035	1035	1035	1035	
5°	1133	1102	1026	951	919	110
15°	1245	1155	945	743	665	353
25°	1229	1107	794	533	440	554
35°	876	909	550	336	258	549
45°	543	556	314	170	107	421
55°	335	305	151	51	47	301
65°	201	162	62	19	28	201
75°	107	75	19	10	15	115
85°	34	19	3	3	3	37
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°	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9
2.5°	1081.9	1079.0	1070.2	1052.6	1034.9	1014.4	998.2	986.5	977.7
5°	1133.3	1127.4	1102.5	1065.8	1026.1	986.5	951.3	930.7	919.0
7.5°	1172.9	1162.7	1127.4	1076.1	1014.4	954.2	899.9	867.6	854.4
10°	1206.7	1189.1	1143.6	1074.6	993.8	914.6	847.0	808.9	794.2
12.5°	1228.7	1209.6	1153.9	1073.1	971.8	874.9	795.7	745.7	731.1
15°	1244.9	1221.4	1155.3	1061.4	945.4	833.8	742.8	684.1	665.0
17.5°	1256.6	1224.3	1149.5	1048.2	921.9	791.3	688.5	625.4	606.3
20°	1259.6	1224.3	1140.6	1029.1	886.7	748.7	629.8	566.7	543.2
22.5°	1261.0	1219.9	1127.4	1005.6	850.0	700.2	581.3	515.3	490.3
25°	1228.7	1205.2	1106.9	965.9	794.2	647.4	532.9	461.0	440.4
27.5°	1152.4	1150.9	1083.4	913.1	742.8	590.1	483.0	414.0	394.9
30°	1074.6	1076.1	1052.6	854.4	682.6	535.8	433.1	365.5	345.0
32.5°	979.2	993.8	992.4	788.3	618.0	484.4	384.6	321.5	300.9
35°	876.4	902.8	908.7	713.5	550.5	425.7	336.2	278.9	258.4
37.5°	783.9	810.3	823.6	647.4	487.4	374.3	290.7	240.8	220.2
40°	694.4	716.4	726.7	571.1	425.7	321.5	248.1	201.1	180.6
42.5°	607.8	640.1	637.1	506.5	371.4	278.9	209.9	162.9	142.4
45°	543.2	565.2	556.4	438.9	314.2	234.9	170.3	126.2	107.2
47.5°	478.6	494.7	481.5	381.7	265.7	193.8	138.0	92.5	71.9
50°	425.7	433.1	415.4	324.4	221.7	158.5	104.2	61.7	58.7
52.5°	375.8	380.2	355.3	276.0	183.5	127.7	76.3	48.4	51.4
55°	334.7	333.2	305.3	233.4	151.2	98.4	51.4	44.0	47.0
57.5°	295.1	290.7	262.8	193.8	123.3	76.3	30.8	38.2	41.1
60°	259.8	255.4	223.1	160.0	98.4	57.3	25.0	33.8	36.7
62.5°	231.9	221.7	189.4	132.1	79.3	41.1	22.0	29.4	32.3
65°	201.1	192.3	161.5	107.2	61.7	29.4	19.1	25.0	27.9
67.5°	176.2	165.9	136.5	88.1	49.9	20.6	17.6	22.0	25.0
70°	151.2	142.4	113.0	70.5	36.7	13.2	14.7	19.1	22.0
72.5°	130.7	120.4	94.0	55.8	27.9	10.3	13.2	16.1	17.6
75°	107.2	98.4	74.9	42.6	19.1	8.8	10.3	13.2	14.7
77.5°	89.5	80.7	58.7	32.3	13.2	7.3	8.8	11.7	11.7
80°	69.0	61.7	44.0	22.0	8.8	4.4	7.3	8.8	8.8
82.5°	49.9	44.0	30.8	14.7	4.4	4.4	4.4	5.9	5.9
85°	33.8	29.4	19.1	8.8	2.9	2.9	2.9	2.9	2.9
87.5°	19.1	14.7	8.8	2.9	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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