

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: P837410

Luminaire Tested: HCSQ425D010-HM40525840-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837410
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-HM40525840-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

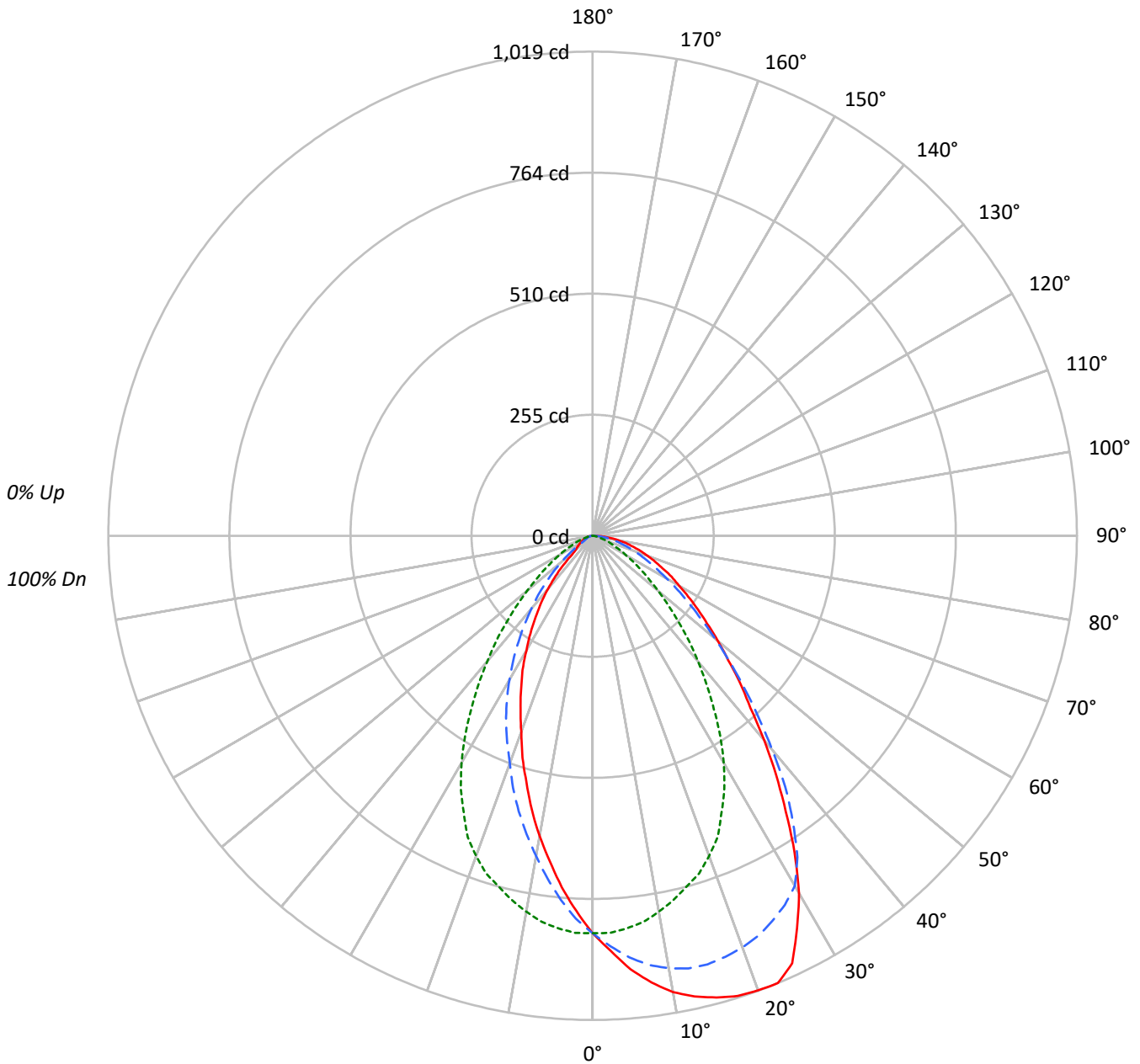
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1353.0 lumens
Efficiency: N/A
Efficacy: 48.8 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					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°	81027	81027	81027	81027	81027
5°	89067	86646	80646	74762	72224
10°	95930	90913	79011	67344	63144
15°	100905	93643	76634	60206	53907
20°	104948	95041	73876	52474	45258
25°	106142	95624	68613	46038	38042
30°	97152	95161	61714	39152	31187
35°	83766	86852	52615	32132	24693
40°	70970	74271	43516	25356	18451
45°	60144	61610	34785	18852	11864
50°	51860	50609	27007	12690	7159
55°	45687	41684	20639	7009	6418
60°	40688	34933	15403	3914	5754
65°	37249	29914	11415	3530	5158
70°	34613	25889	8412	3371	5042
75°	32414	22645	5764	3107	4454
80°	31130	19861	3961	3292	3961
85°	30345	17117	2668	2668	2668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 62583 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.4	5.8
10°-20°	215.9	16.0
20°-30°	301.9	22.3
30°-40°	295.1	21.8
40°-50°	214.1	15.8
50°-60°	129.1	9.5
60°-70°	72.6	5.4
70°-80°	35.9	2.7
80°-90°	9.8	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°	596.3	44.1
0°-40°	891.4	65.9
0°-60°	1234.6	91.3
0°-90°	1353.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1353.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	836	836	836	836	836	
5°	916	891	829	769	743	89
15°	1006	934	764	600	538	285
25°	993	895	642	431	356	448
35°	708	734	445	272	209	443
45°	439	450	254	138	87	340
55°	270	247	122	42	38	243
65°	162	130	50	15	22	163
75°	87	60	15	8	12	93
85°	27	15	2	2	2	30
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°	836.4	836.4	836.4	836.4	836.4	836.4	836.4	836.4	836.4
2.5°	874.4	872.0	864.9	850.7	836.4	819.8	806.8	797.3	790.2
5°	915.9	911.2	891.0	861.3	829.3	797.3	768.8	752.2	742.7
7.5°	948.0	939.7	911.2	869.7	819.8	771.2	727.3	701.2	690.5
10°	975.2	961.0	924.2	868.5	803.2	739.1	684.6	653.7	641.9
12.5°	993.0	977.6	932.5	867.3	785.4	707.1	643.0	602.7	590.8
15°	1006.1	987.1	933.7	857.8	764.1	673.9	600.3	552.9	537.5
17.5°	1015.6	989.5	929.0	847.1	745.1	639.5	556.4	505.4	490.0
20°	1018.0	989.5	921.9	831.7	716.6	605.1	509.0	458.0	439.0
22.5°	1019.1	985.9	911.2	812.7	686.9	565.9	469.8	416.4	396.3
25°	993.0	974.1	894.6	780.7	641.9	523.2	430.7	372.5	355.9
27.5°	931.3	930.2	875.6	738.0	600.3	476.9	390.3	334.6	319.1
30°	868.5	869.7	850.7	690.5	551.7	433.0	350.0	295.4	278.8
32.5°	791.3	803.2	802.0	637.1	499.5	391.5	310.8	259.8	243.2
35°	708.3	729.7	734.4	576.6	444.9	344.1	271.7	225.4	208.8
37.5°	633.6	654.9	665.6	523.2	393.9	302.5	234.9	194.6	178.0
40°	561.2	579.0	587.3	461.5	344.1	259.8	200.5	162.5	145.9
42.5°	491.2	517.3	514.9	409.3	300.2	225.4	169.7	131.7	115.1
45°	439.0	456.8	449.7	354.7	253.9	189.8	137.6	102.0	86.6
47.5°	386.8	399.8	389.1	308.5	214.7	156.6	111.5	74.7	58.1
50°	344.1	350.0	335.8	262.2	179.2	128.1	84.2	49.8	47.5
52.5°	303.7	307.3	287.1	223.0	148.3	103.2	61.7	39.2	41.5
55°	270.5	269.3	246.8	188.6	122.2	79.5	41.5	35.6	38.0
57.5°	238.5	234.9	212.4	156.6	99.7	61.7	24.9	30.8	33.2
60°	210.0	206.4	180.3	129.3	79.5	46.3	20.2	27.3	29.7
62.5°	187.5	179.2	153.0	106.8	64.1	33.2	17.8	23.7	26.1
65°	162.5	155.4	130.5	86.6	49.8	23.7	15.4	20.2	22.5
67.5°	142.4	134.1	110.3	71.2	40.3	16.6	14.2	17.8	20.2
70°	122.2	115.1	91.4	56.9	29.7	10.7	11.9	15.4	17.8
72.5°	105.6	97.3	75.9	45.1	22.5	8.3	10.7	13.1	14.2
75°	86.6	79.5	60.5	34.4	15.4	7.1	8.3	10.7	11.9
77.5°	72.4	65.3	47.5	26.1	10.7	5.9	7.1	9.5	9.5
80°	55.8	49.8	35.6	17.8	7.1	3.6	5.9	7.1	7.1
82.5°	40.3	35.6	24.9	11.9	3.6	3.6	3.6	4.7	4.7
85°	27.3	23.7	15.4	7.1	2.4	2.4	2.4	2.4	2.4
87.5°	15.4	11.9	7.1	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

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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