

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: P837417

Luminaire Tested: HCSQ425D010-HM40525927-41SQMW

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837417
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ425D010-HM40525927-41SQMW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

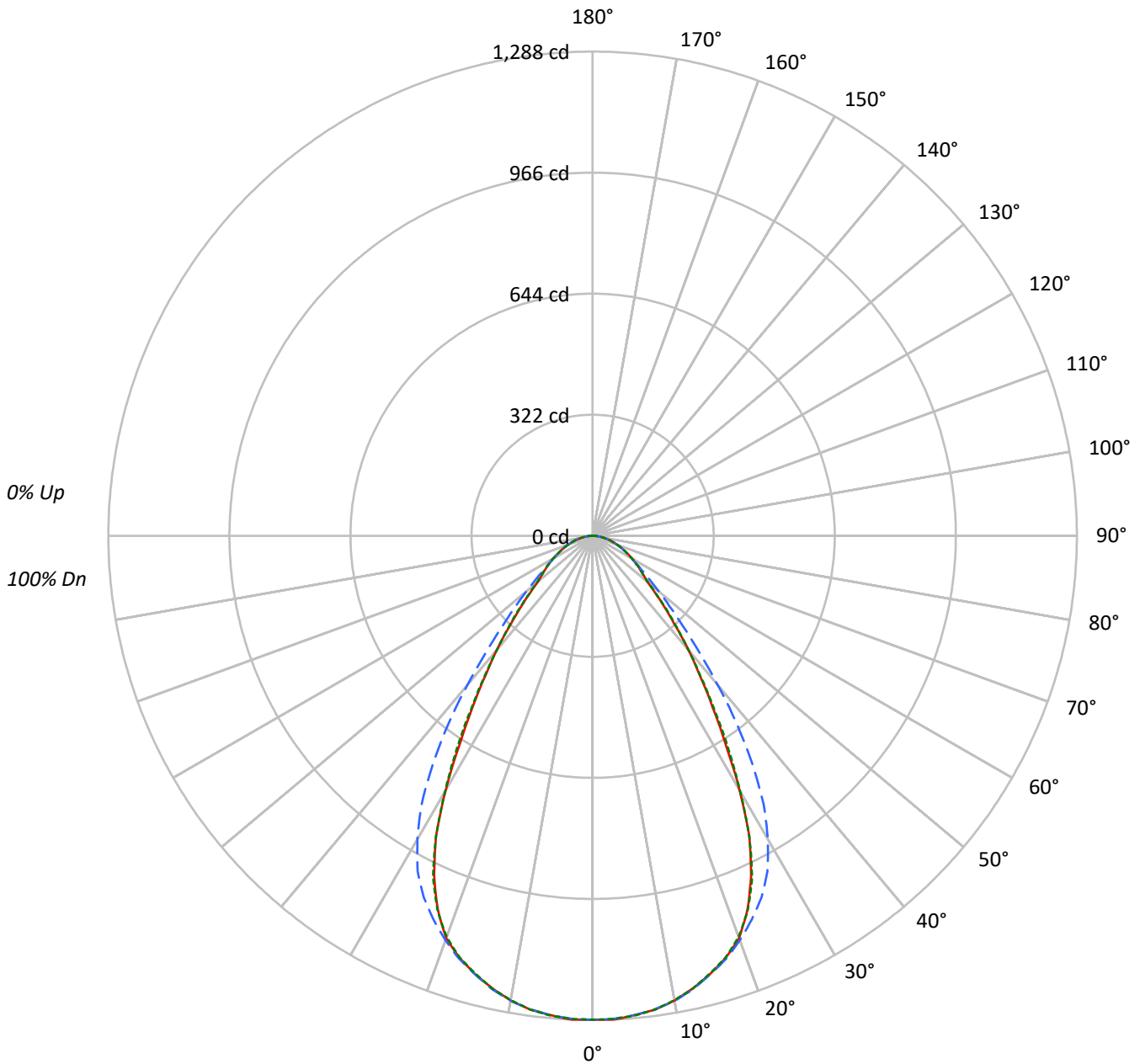
Lumens per Lamp: N/A
Luminaire Lumens: 1868.0 lumens
Efficiency: N/A
Efficacy: 67.4 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.07
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 27.7
Input Voltage (V): NR
Input Current (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	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71					71			
4	91	81	74	69	89	80	73	68	77	72	67	75	70	66	73	69	66	64					64			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58					58			
6	79	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53					53			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41					41			
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	124698	124698	124698
5°	124494	124494	124591
10°	123474	123572	123376
15°	121073	121174	120873
20°	117443	118062	117031
25°	106591	113539	107339
30°	87487	104267	87823
35°	65766	87526	66712
40°	50092	65267	49965
45°	37402	46321	38087
50°	28484	34513	29087
55°	25672	27024	25672
60°	23444	23250	23250
65°	21318	21318	21318
70°	19827	19544	19544
75°	18341	17966	18341
80°	16737	16179	16737
85°	14450	14450	14450

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 46321 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.4	6.5
10°-20°	339.8	18.2
20°-30°	467.4	25.0
30°-40°	397.9	21.3
40°-50°	240.3	12.9
50°-60°	141.6	7.6
60°-70°	92.9	5.0
70°-80°	51.5	2.8
80°-90°	15.1	0.8
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°	928.7	49.7
0°-40°	1326.6	71.0
0°-60°	1708.5	91.5
0°-90°	1868.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1868.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1287	1287	1287	1287	1287	
5°	1280	1281	1280	1279	1281	121
15°	1207	1210	1208	1207	1205	340
25°	997	1028	1062	1030	1004	451
35°	556	612	740	629	564	352
45°	273	302	338	305	278	215
55°	152	155	160	155	152	137
65°	93	94	93	93	93	93
75°	49	49	48	48	49	52
85°	13	13	13	13	13	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1287.2	1287.2	1287.2	1287.2	1287.2
2.5°	1288.2	1285.2	1286.2	1285.2	1286.2
5°	1280.2	1281.2	1280.2	1279.2	1281.2
7.5°	1271.2	1270.2	1270.2	1269.2	1271.2
10°	1255.2	1253.2	1256.2	1254.2	1254.2
12.5°	1233.2	1236.2	1235.2	1235.2	1233.2
15°	1207.2	1210.2	1208.2	1207.2	1205.2
17.5°	1177.2	1179.2	1180.2	1176.2	1176.2
20°	1139.2	1143.2	1145.2	1138.2	1135.2
22.5°	1076.2	1094.2	1105.2	1093.2	1078.2
25°	997.2	1028.2	1062.2	1030.2	1004.2
27.5°	902.1	946.1	1007.2	953.1	902.1
30°	782.1	847.1	932.1	854.1	785.1
32.5°	658.1	727.1	846.1	739.1	672.1
35°	556.1	612.1	740.1	629.1	564.1
37.5°	468.1	516.1	629.1	527.1	473.1
40°	396.1	434.1	516.1	439.1	395.1
42.5°	327.1	363.1	418.1	368.1	331.1
45°	273.0	302.0	338.1	305.0	278.0
47.5°	227.0	251.0	277.0	251.0	230.0
50°	189.0	208.0	229.0	208.0	193.0
52.5°	169.0	175.0	189.0	176.0	169.0
55°	152.0	155.0	160.0	155.0	152.0
57.5°	136.0	138.0	137.0	137.0	136.0
60°	121.0	122.0	120.0	121.0	120.0
62.5°	107.0	107.0	105.0	107.0	106.0
65°	93.0	94.0	93.0	93.0	93.0
67.5°	81.0	81.0	80.0	81.0	81.0
70°	70.0	70.0	69.0	70.0	69.0
72.5°	59.0	59.0	58.0	58.0	58.0
75°	49.0	49.0	48.0	48.0	49.0
77.5°	39.0	39.0	38.0	39.0	39.0
80°	30.0	30.0	29.0	30.0	30.0
82.5°	21.0	21.0	21.0	22.0	22.0
85°	13.0	13.0	13.0	13.0	13.0
87.5°	6.0	6.0	6.0	6.0	7.0
90°	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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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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