

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: P837401

Luminaire Tested: HCSQ425D010-HM40525830-41SQMB

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837401
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ425D010-HM40525830-41SQMB
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

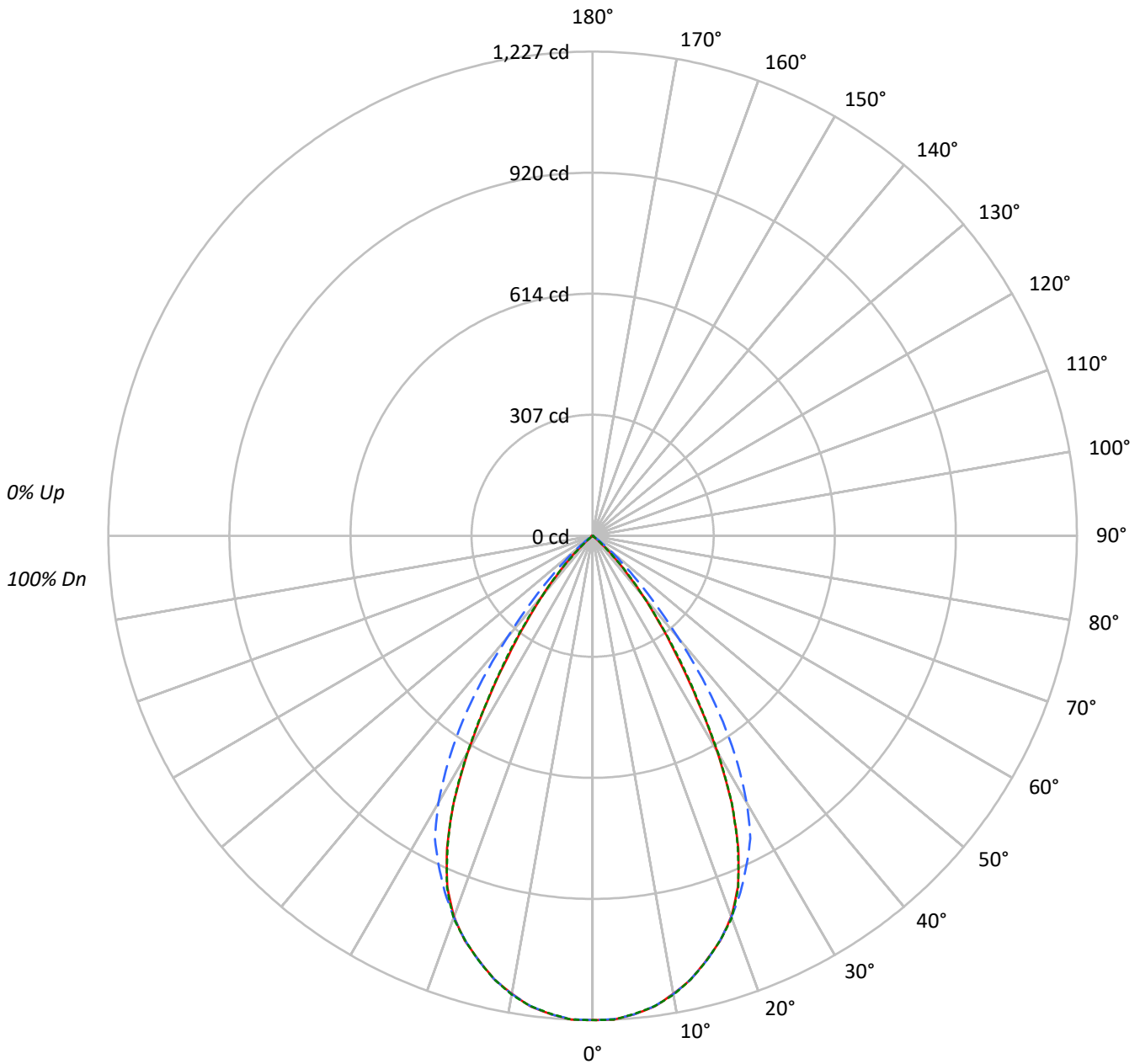
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1225.9 lumens
Efficiency: N/A
Efficacy: 44.3 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 0.96 / 0.99
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										
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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93	93	93	93	93	93		
	2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87	87	87	87	87	87		
	3	102	96	91	87	100	94	90	86	92	88	84	89	86	83	87	84	82	80	80	80	80	80	80		
	4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	79	76	74	74	74	74	74	74		
	5	92	83	77	73	90	82	77	73	80	76	72	79	75	71	77	74	71	69	69	69	69	69	69		
	6	87	78	72	67	85	77	71	67	76	70	67	74	70	66	73	69	66	64	64	64	64	64	64		
	7	82	73	67	63	81	72	66	62	71	66	62	70	65	62	69	65	61	60	60	60	60	60	60		
	8	78	69	62	58	77	68	62	58	67	62	58	66	61	58	65	61	57	56	56	56	56	56	56		
	9	74	65	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52	52	52	52	52	52		
	10	71	61	55	51	70	60	55	51	60	54	51	59	54	51	58	54	50	49	49	49	49	49	49		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	118895	118895	118895
5°	118357	118357	118251
10°	115919	116027	116145
15°	111676	111786	111786
20°	105876	105990	106227
25°	93347	98574	92973
30°	70428	87364	71066
35°	44159	68001	45650
40°	24913	42327	24913
45°	10453	21372	10289
50°	859	8229	1025
55°	388	1723	388
60°	446	213	446
65°	252	252	252
70°	312	312	312
75°	412	412	412
80°	0	614	614
85°	0	1223	1223

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 21372 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.0	9.4
10°-20°	312.9	25.5
20°-30°	406.0	33.1
30°-40°	288.6	23.5
40°-50°	93.6	7.6
50°-60°	6.8	0.6
60°-70°	1.1	0.1
70°-80°	1.1	0.1
80°-90°	0.8	0.1
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°	833.9	68.0
0°-40°	1122.5	91.6
0°-60°	1222.9	99.8
0°-90°	1225.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1225.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1227	1227	1227	1227	1227	
5°	1217	1218	1217	1217	1216	115
15°	1114	1117	1115	1117	1115	313
25°	873	896	922	901	870	391
35°	373	442	575	446	386	239
45°	76	108	156	110	75	63
55°	2	2	10	2	2	3
65°	1	1	1	1	1	1
75°	1	1	1	1	1	1
85°	0	0	1	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1227.3	1227.3	1227.3	1227.3	1227.3
2.5°	1227.3	1227.3	1226.2	1226.2	1227.3
5°	1217.1	1218.2	1217.1	1217.1	1216.0
7.5°	1203.4	1203.4	1202.3	1202.3	1202.3
10°	1178.4	1179.5	1179.5	1179.5	1180.7
12.5°	1151.1	1151.1	1151.1	1151.1	1151.1
15°	1113.5	1116.9	1114.6	1116.9	1114.6
17.5°	1075.9	1075.9	1074.8	1077.1	1074.8
20°	1027.0	1027.0	1028.1	1030.4	1030.4
22.5°	962.1	973.4	978.0	975.7	964.3
25°	873.3	896.0	922.2	900.6	869.8
27.5°	761.7	804.9	865.3	811.8	764.0
30°	629.6	694.5	781.0	696.8	635.3
32.5°	493.0	568.1	683.1	573.8	497.5
35°	373.4	441.8	575.0	446.3	386.0
37.5°	275.5	338.1	456.6	340.4	283.5
40°	197.0	242.5	334.7	247.1	197.0
42.5°	126.4	171.9	235.7	173.1	132.1
45°	76.3	108.2	156.0	110.4	75.1
47.5°	34.2	61.5	96.8	63.8	34.2
50°	5.7	25.0	54.6	26.2	6.8
52.5°	3.4	4.6	26.2	4.6	3.4
55°	2.3	2.3	10.2	2.3	2.3
57.5°	2.3	2.3	2.3	2.3	2.3
60°	2.3	1.1	1.1	1.1	2.3
62.5°	1.1	1.1	1.1	1.1	1.1
65°	1.1	1.1	1.1	1.1	1.1
67.5°	1.1	1.1	1.1	1.1	1.1
70°	1.1	1.1	1.1	1.1	1.1
72.5°	1.1	1.1	1.1	1.1	1.1
75°	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1	1.1
80°	0.0	1.1	1.1	1.1	1.1
82.5°	0.0	1.1	1.1	1.1	1.1
85°	0.0	0.0	1.1	1.1	1.1
87.5°	0.0	0.0	1.1	1.1	1.1
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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