

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: P837411

Luminaire Tested: HCSQ425D010-HM40525840-41SQMB

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837411
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-HM40525840-41SQMB
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

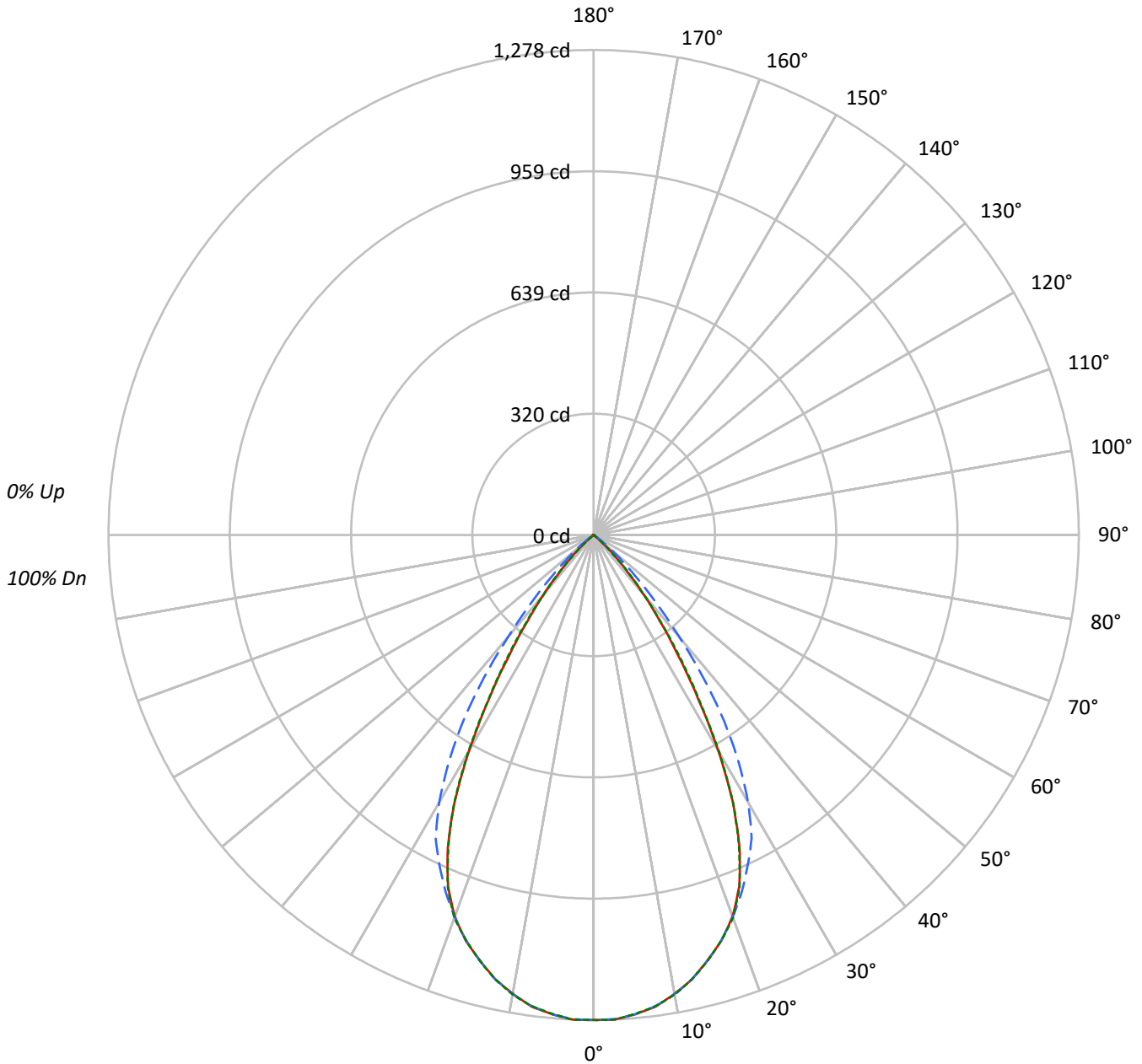
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1277.1 lumens
Efficiency: N/A
Efficacy: 46.1 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					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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93					93			
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87					87			
3	102	96	91	87	100	94	90	86	92	88	84	89	86	83	87	84	82	80					80			
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	79	76	74					74			
5	92	83	77	73	90	82	77	73	80	76	72	79	75	71	77	74	71	69					69			
6	87	78	72	67	85	77	71	67	76	70	67	74	70	66	73	69	66	64					64			
7	82	73	67	63	81	72	66	62	71	66	62	70	65	62	69	65	61	60					60			
8	78	69	62	58	77	68	62	58	67	62	58	66	61	58	65	61	57	56					56			
9	74	65	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52					52			
10	71	61	55	51	70	60	55	51	60	54	51	59	54	51	58	54	50	49					49			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	123846	123846	123846
5°	123278	123278	123161
10°	120739	120857	120975
15°	116320	116440	116440
20°	110278	110402	110639
25°	97227	102679	96843
30°	73359	91000	74019
35°	46004	70828	47542
40°	25950	44097	25950
45°	10892	22263	10727
50°	889	8575	1070
55°	405	1807	405
60°	465	233	465
65°	275	275	275
70°	340	340	340
75°	449	449	449
80°	0	669	669
85°	0	1334	1334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 22263 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.8	9.4
10°-20°	326.0	25.5
20°-30°	422.8	33.1
30°-40°	300.6	23.5
40°-50°	97.5	7.6
50°-60°	7.0	0.6
60°-70°	1.2	0.1
70°-80°	1.2	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°	868.6	68.0
0°-40°	1169.2	91.6
0°-60°	1273.7	99.7
0°-90°	1277.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1277.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1278	1278	1278	1278	1278	
5°	1268	1269	1268	1268	1266	120
15°	1160	1163	1161	1163	1161	326
25°	910	933	961	938	906	407
35°	389	460	599	465	402	249
45°	80	113	162	115	78	66
55°	2	2	11	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°	1278.4	1278.4	1278.4	1278.4	1278.4
2.5°	1278.4	1278.4	1277.2	1277.2	1278.4
5°	1267.7	1268.9	1267.7	1267.7	1266.5
7.5°	1253.5	1253.5	1252.3	1252.3	1252.3
10°	1227.4	1228.6	1228.6	1228.6	1229.8
12.5°	1198.9	1198.9	1198.9	1198.9	1198.9
15°	1159.8	1163.4	1161.0	1163.4	1161.0
17.5°	1120.7	1120.7	1119.5	1121.9	1119.5
20°	1069.7	1069.7	1070.9	1073.2	1073.2
22.5°	1002.1	1013.9	1018.7	1016.3	1004.5
25°	909.6	933.3	960.6	938.0	906.0
27.5°	793.4	838.4	901.3	845.5	795.7
30°	655.8	723.4	813.5	725.8	661.7
32.5°	513.5	591.8	711.5	597.7	518.2
35°	389.0	460.1	598.9	464.9	402.0
37.5°	287.0	352.2	475.5	354.6	295.3
40°	205.2	252.6	348.7	257.3	205.2
42.5°	131.6	179.1	245.5	180.3	137.6
45°	79.5	112.7	162.5	115.0	78.3
47.5°	35.6	64.0	100.8	66.4	35.6
50°	5.9	26.1	56.9	27.3	7.1
52.5°	3.6	4.7	27.3	4.7	3.6
55°	2.4	2.4	10.7	2.4	2.4
57.5°	2.4	2.4	2.4	2.4	2.4
60°	2.4	1.2	1.2	1.2	2.4
62.5°	1.2	1.2	1.2	1.2	1.2
65°	1.2	1.2	1.2	1.2	1.2
67.5°	1.2	1.2	1.2	1.2	1.2
70°	1.2	1.2	1.2	1.2	1.2
72.5°	1.2	1.2	1.2	1.2	1.2
75°	1.2	1.2	1.2	1.2	1.2
77.5°	1.2	1.2	1.2	1.2	1.2
80°	0.0	1.2	1.2	1.2	1.2
82.5°	0.0	1.2	1.2	1.2	1.2
85°	0.0	0.0	1.2	1.2	1.2
87.5°	0.0	0.0	1.2	1.2	1.2
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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