

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: P837414

Luminaire Tested: HCSQ425D010-HM40525927-41SQH

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837414
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ425D010-HM40525927-41SQH
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

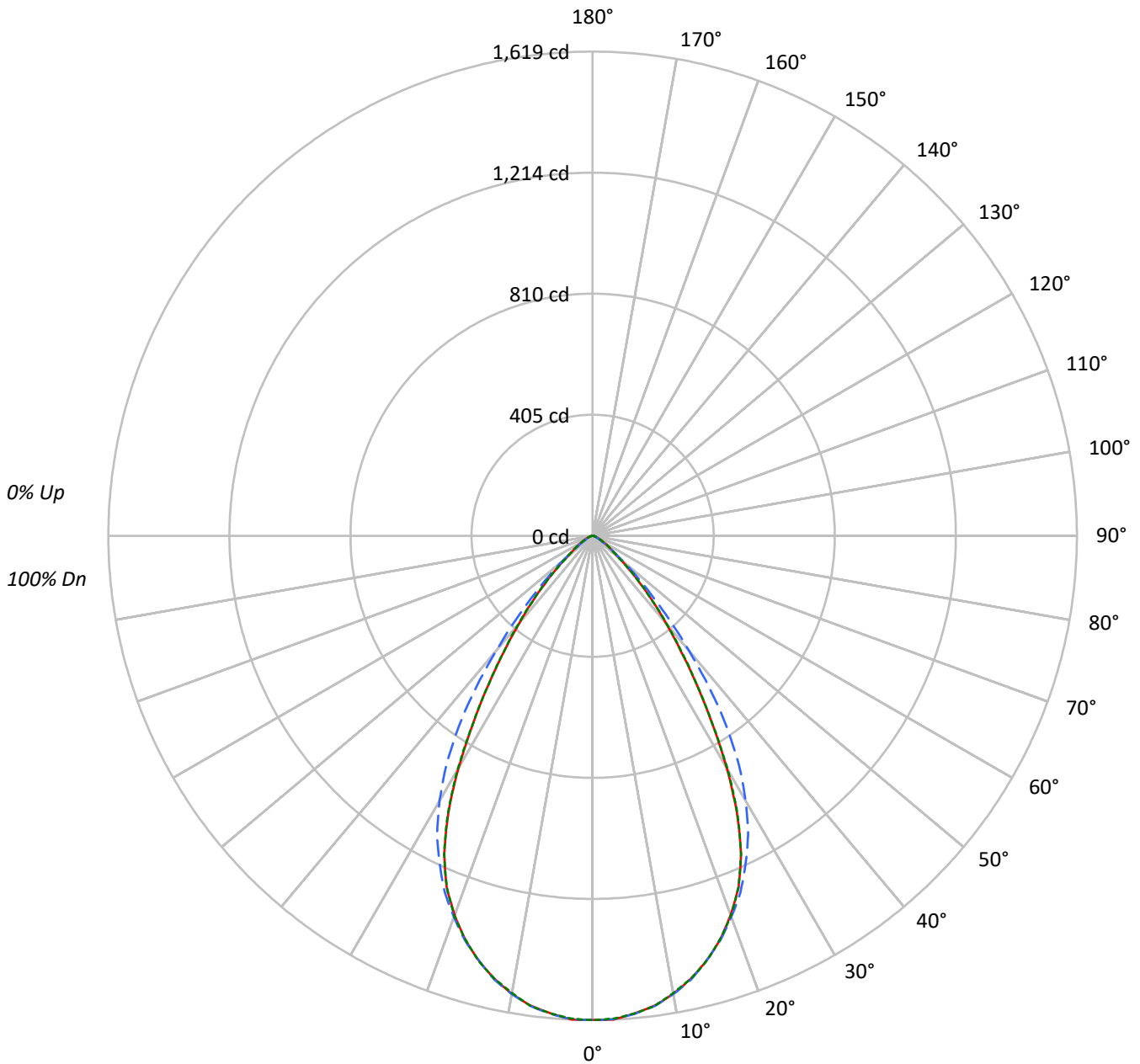
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1820.0 lumens
Efficiency: N/A
Efficacy: 65.7 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.01
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									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100															
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92				92															
2	107	101	97	93	104	100	95	92	96	93	90	93	90	88	90	88	86	85				85															
3	101	93	88	84	98	92	87	83	89	85	82	87	83	80	85	82	79	77				77															
4	95	87	80	76	93	85	80	75	83	78	74	81	77	74	79	76	73	71				71															
5	89	80	74	69	88	79	73	69	77	72	68	76	71	68	74	70	67	65				65															
6	84	75	68	63	83	74	68	63	72	67	63	71	66	62	69	65	62	60				60															
7	80	70	63	59	78	69	63	58	68	62	58	66	61	58	65	61	57	56				56															
8	75	65	59	54	74	65	58	54	63	58	54	62	57	54	61	57	53	52				52															
9	72	61	55	50	70	61	54	50	60	54	50	59	54	50	58	53	50	48				48															
10	68	57	51	47	67	57	51	47	56	51	47	55	50	47	55	50	46	45				45															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	156851	156851	156851
5°	155894	156089	155894
10°	152975	153073	152680
15°	147541	147440	147641
20°	139082	139804	139392
25°	125500	129348	125500
30°	100228	114446	101011
35°	71549	92600	71667
40°	48308	62978	49067
45°	30689	37265	30826
50°	17483	19894	16880
55°	11485	9627	11316
60°	7944	5619	7750
65°	5501	4126	5501
70°	3965	3116	3965
75°	2620	2620	2620
80°	1674	2232	2232
85°	2223	2223	2223

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 37265 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.7	8.3
10°-20°	412.4	22.7
20°-30°	540.0	29.7
30°-40°	424.4	23.3
40°-50°	198.2	10.9
50°-60°	61.4	3.4
60°-70°	21.9	1.2
70°-80°	7.7	0.4
80°-90°	2.1	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°	1104.1	60.7
0°-40°	1528.6	84.0
0°-60°	1788.2	98.3
0°-90°	1820.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1820.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1619	1619	1619	1619	1619	
5°	1603	1604	1605	1607	1603	152
15°	1471	1471	1470	1471	1472	412
25°	1174	1190	1210	1191	1174	528
35°	605	660	783	668	606	381
45°	224	251	272	246	225	178
55°	68	64	57	63	67	64
65°	24	22	18	21	24	25
75°	7	7	7	7	7	8
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1619.1	1619.1	1619.1	1619.1	1619.1
2.5°	1619.1	1617.1	1618.1	1616.1	1616.1
5°	1603.1	1604.1	1605.1	1607.1	1603.1
7.5°	1585.1	1587.1	1586.1	1586.1	1586.1
10°	1555.1	1556.1	1556.1	1556.1	1552.1
12.5°	1517.1	1519.1	1520.1	1517.1	1517.1
15°	1471.1	1471.1	1470.1	1471.1	1472.1
17.5°	1416.1	1419.1	1419.1	1416.1	1415.1
20°	1349.1	1354.1	1356.1	1352.1	1352.1
22.5°	1274.1	1279.1	1291.1	1281.1	1273.1
25°	1174.1	1190.1	1210.1	1191.1	1174.1
27.5°	1045.1	1080.1	1126.1	1086.1	1048.1
30°	896.0	953.0	1023.1	956.0	903.0
32.5°	744.0	808.0	911.0	813.0	744.0
35°	605.0	660.0	783.0	668.0	606.0
37.5°	481.0	534.0	642.0	540.0	488.0
40°	382.0	425.0	498.0	424.0	388.0
42.5°	298.0	329.0	377.0	328.0	297.0
45°	224.0	251.0	272.0	246.0	225.0
47.5°	165.0	183.0	195.0	180.0	161.0
50°	116.0	129.0	132.0	126.0	112.0
52.5°	87.0	87.0	88.0	86.0	85.0
55°	68.0	64.0	57.0	63.0	67.0
57.5°	53.0	49.0	40.0	47.0	52.0
60°	41.0	37.0	29.0	36.0	40.0
62.5°	32.0	28.0	23.0	28.0	31.0
65°	24.0	22.0	18.0	21.0	24.0
67.5°	18.0	16.0	14.0	16.0	18.0
70°	14.0	13.0	11.0	12.0	14.0
72.5°	10.0	9.0	9.0	9.0	10.0
75°	7.0	7.0	7.0	7.0	7.0
77.5°	5.0	5.0	5.0	5.0	5.0
80°	3.0	3.0	4.0	4.0	4.0
82.5°	2.0	2.0	3.0	3.0	3.0
85°	2.0	2.0	2.0	2.0	2.0
87.5°	1.0	1.0	1.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

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