

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: P837213

Luminaire Tested: HCSQ405D010-HM40525927-41SQC

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837213
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ405D010-HM40525927-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

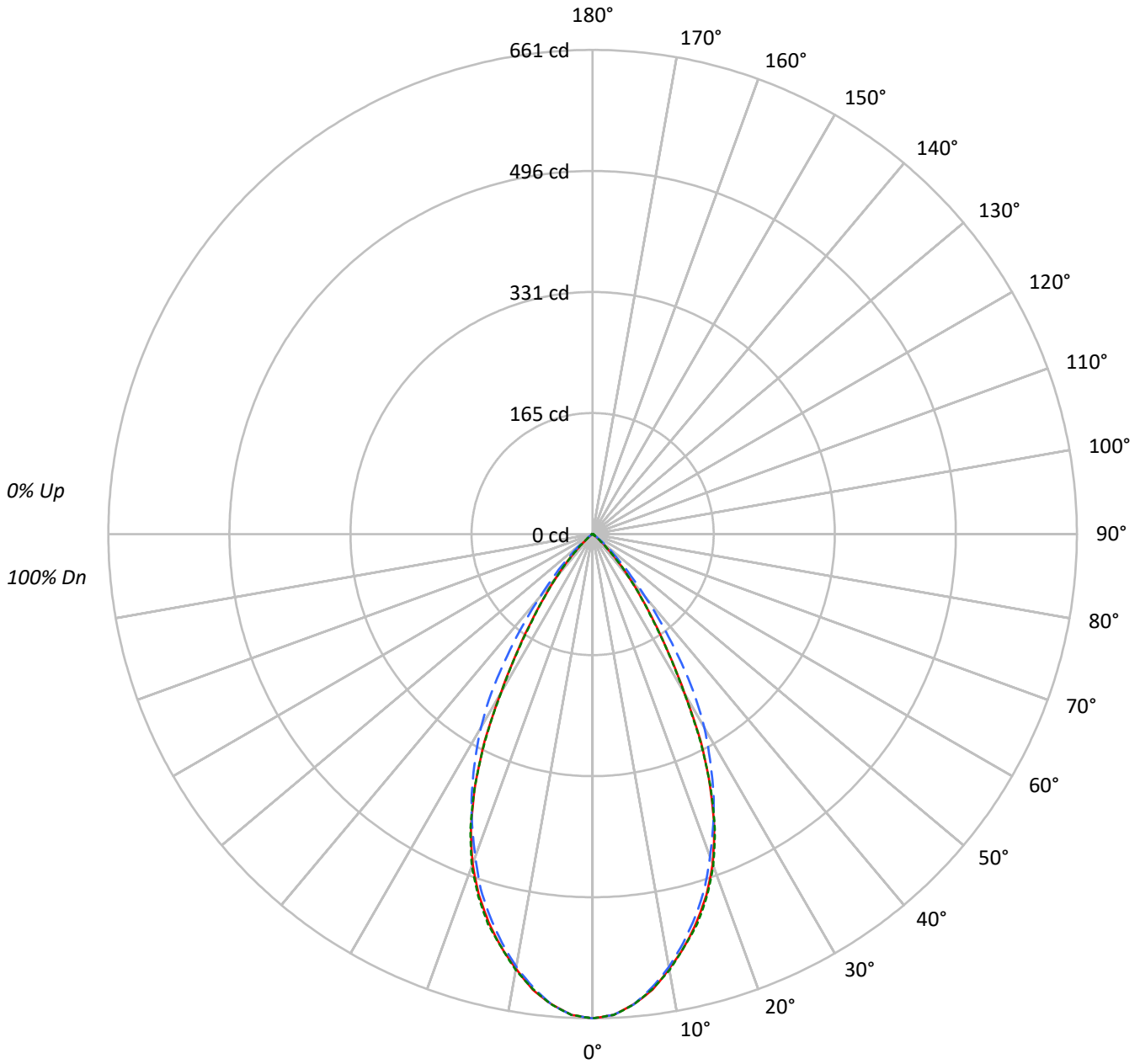
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 534.2 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.87
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 6
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				
RW	70	50	30	10	70	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		
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94		
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87		
3	103	96	91	87	101	95	90	87	92	89	85	90	87	84	88	85	83	81		
4	98	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76		
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	79	75	72	71		
6	88	79	73	69	87	79	73	69	77	72	68	76	71	68	74	71	68	66		
7	84	75	69	65	82	74	68	64	73	68	64	72	67	64	70	66	63	62		
8	80	70	64	60	79	70	64	60	69	64	60	68	63	60	67	63	60	58		
9	76	67	61	57	75	66	60	57	65	60	56	64	60	56	63	59	56	55		
10	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	53	52		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	64044	64044	64044
5°	62665	62694	62694
10°	59278	59012	59435
15°	55001	54248	55291
20°	49371	48268	49670
25°	40554	41730	40693
30°	28033	34096	27820
35°	17255	24078	16852
40°	9738	14075	9674
45°	4453	7056	4261
50°	1130	2833	1176
55°	540	861	507
60°	368	310	407
65°	298	252	298
70°	227	227	312
75°	187	187	299
80°	279	279	279
85°	333	556	556

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 7056 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	11.3
10°-20°	151.9	28.4
20°-30°	173.6	32.5
30°-40°	107.8	20.2
40°-50°	34.0	6.4
50°-60°	4.4	0.8
60°-70°	1.3	0.2
70°-80°	0.7	0.1
80°-90°	0.4	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°	385.6	72.2
0°-40°	493.4	92.4
0°-60°	531.7	99.5
0°-90°	534.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	534.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	661	661	661	661	661	
5°	644	644	645	644	645	60
15°	548	544	541	544	551	153
25°	379	385	390	385	381	170
35°	146	168	204	164	142	94
45°	32	39	52	39	31	27
55°	3	3	5	3	3	3
65°	1	1	1	1	1	1
75°	0	0	0	0	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	661.1	661.1	661.1	661.1	661.1
2.5°	657.0	657.6	657.0	658.1	657.0
5°	644.4	643.9	644.7	644.1	644.7
7.5°	627.2	624.0	623.8	625.9	626.2
10°	602.6	601.8	599.9	601.8	604.2
12.5°	577.3	574.1	571.4	575.2	577.3
15°	548.4	544.3	540.9	544.3	551.3
17.5°	516.4	510.8	507.9	511.9	518.6
20°	478.9	473.0	468.2	471.6	481.8
22.5°	433.8	433.3	430.1	431.9	435.7
25°	379.4	384.7	390.4	384.7	380.7
27.5°	319.5	334.0	346.9	330.0	317.1
30°	250.6	272.6	304.8	271.0	248.7
32.5°	193.7	216.8	257.8	213.8	192.1
35°	145.9	168.5	203.6	164.5	142.5
37.5°	107.3	124.2	154.8	123.1	107.3
40°	77.0	88.0	111.3	87.7	76.5
42.5°	53.4	60.6	77.8	60.1	51.8
45°	32.5	38.9	51.5	39.2	31.1
47.5°	17.2	24.7	32.5	23.6	17.2
50°	7.5	13.1	18.8	12.9	7.8
52.5°	4.0	5.6	10.2	5.6	4.0
55°	3.2	3.2	5.1	3.2	3.0
57.5°	2.4	2.4	2.7	2.4	2.4
60°	1.9	1.9	1.6	1.9	2.1
62.5°	1.6	1.6	1.3	1.6	1.6
65°	1.3	1.3	1.1	1.3	1.3
67.5°	1.1	1.1	1.1	1.1	1.1
70°	0.8	0.8	0.8	1.1	1.1
72.5°	0.8	0.8	0.8	0.8	0.8
75°	0.5	0.5	0.5	0.5	0.8
77.5°	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5
82.5°	0.3	0.5	0.5	0.5	0.5
85°	0.3	0.5	0.5	0.5	0.5
87.5°	0.3	0.3	0.5	0.5	0.5
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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