

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: P837196

Luminaire Tested: HCSQ405D010-HM40525827-41SQMB

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837196
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: HCSQ405D010-HM40525827-41SQMB
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

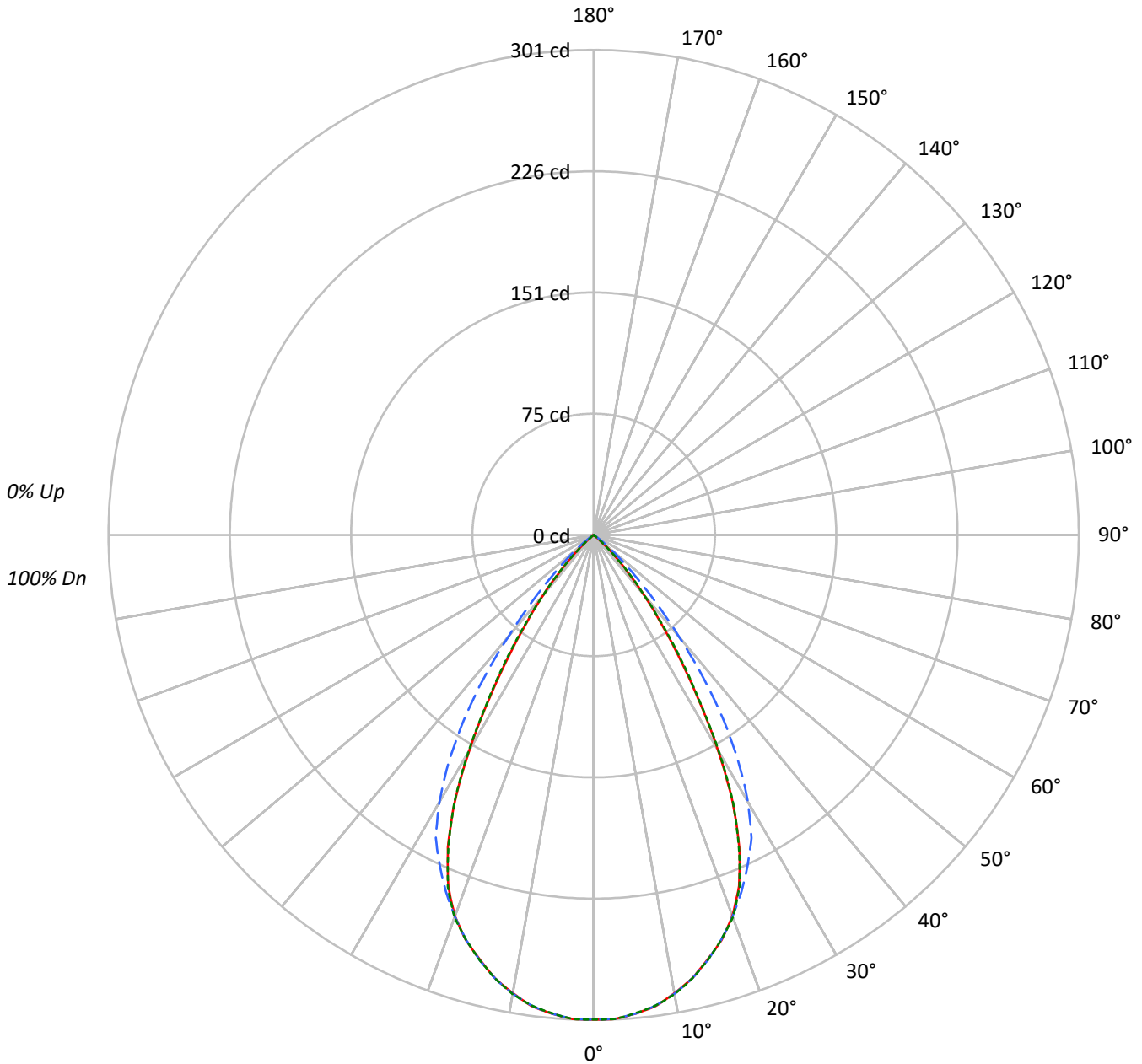
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 300.6 lumens
Efficiency: N/A
Efficacy: 50.1 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): 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									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																			
1	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93																			
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87																			
3	102	96	91	86	100	94	90	86	92	88	84	89	86	83	87	84	82	80																			
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	79	76	74																			
5	92	83	77	73	90	82	77	73	80	76	72	79	75	71	77	74	71	69																			
6	87	78	72	67	85	77	71	67	76	70	67	74	70	66	73	69	66	64																			
7	82	73	67	63	81	72	66	62	71	66	62	70	65	62	69	65	61	60																			
8	78	69	62	58	77	68	62	58	67	62	58	66	61	58	65	61	57	56																			
9	74	65	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52																			
10	71	61	55	51	70	60	55	51	60	54	51	59	54	51	58	54	50	49																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29140	29140	29140
5°	29008	29008	28979
10°	28409	28439	28468
15°	27370	27400	27400
20°	25948	25979	26041
25°	22875	24157	22789
30°	17260	21410	17417
35°	10821	16663	11188
40°	6108	10370	6108
45°	2562	5233	2521
50°	211	2020	256
55°	101	422	101
60°	116	58	116
65°	69	69	69
70°	85	85	85
75°	112	112	112
80°	0	167	167
85°	0	333	333

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5233 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.2	9.4
10°-20°	76.7	25.5
20°-30°	99.5	33.1
30°-40°	70.7	23.5
40°-50°	22.9	7.6
50°-60°	1.7	0.6
60°-70°	0.3	0.1
70°-80°	0.3	0.1
80°-90°	0.2	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°	204.4	68.0
0°-40°	275.1	91.5
0°-60°	299.7	99.7
0°-90°	300.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	300.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	301	301	301	301	301	
5°	298	299	298	298	298	28
15°	273	274	273	274	273	77
25°	214	220	226	221	213	96
35°	92	108	141	109	95	59
45°	19	26	38	27	18	16
55°	1	1	2	1	1	1
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
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°	300.8	300.8	300.8	300.8	300.8
2.5°	300.8	300.8	300.6	300.6	300.8
5°	298.3	298.6	298.3	298.3	298.0
7.5°	295.0	295.0	294.7	294.7	294.7
10°	288.8	289.1	289.1	289.1	289.4
12.5°	282.1	282.1	282.1	282.1	282.1
15°	272.9	273.8	273.2	273.8	273.2
17.5°	263.7	263.7	263.4	264.0	263.4
20°	251.7	251.7	252.0	252.6	252.6
22.5°	235.8	238.6	239.7	239.2	236.4
25°	214.0	219.6	226.0	220.7	213.2
27.5°	186.7	197.3	212.1	199.0	187.3
30°	154.3	170.2	191.4	170.8	155.7
32.5°	120.8	139.3	167.4	140.6	122.0
35°	91.5	108.3	140.9	109.4	94.6
37.5°	67.5	82.9	111.9	83.4	69.5
40°	48.3	59.4	82.0	60.6	48.3
42.5°	31.0	42.1	57.8	42.4	32.4
45°	18.7	26.5	38.2	27.1	18.4
47.5°	8.4	15.1	23.7	15.6	8.4
50°	1.4	6.1	13.4	6.4	1.7
52.5°	0.8	1.1	6.4	1.1	0.8
55°	0.6	0.6	2.5	0.6	0.6
57.5°	0.6	0.6	0.6	0.6	0.6
60°	0.6	0.3	0.3	0.3	0.6
62.5°	0.3	0.3	0.3	0.3	0.3
65°	0.3	0.3	0.3	0.3	0.3
67.5°	0.3	0.3	0.3	0.3	0.3
70°	0.3	0.3	0.3	0.3	0.3
72.5°	0.3	0.3	0.3	0.3	0.3
75°	0.3	0.3	0.3	0.3	0.3
77.5°	0.3	0.3	0.3	0.3	0.3
80°	0.0	0.3	0.3	0.3	0.3
82.5°	0.0	0.3	0.3	0.3	0.3
85°	0.0	0.0	0.3	0.3	0.3
87.5°	0.0	0.0	0.3	0.3	0.3
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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