

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: P837272

Luminaire Tested: HCSQ407D010-HM40525940-41SQMW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837272
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ407D010-HM40525940-41SQMW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

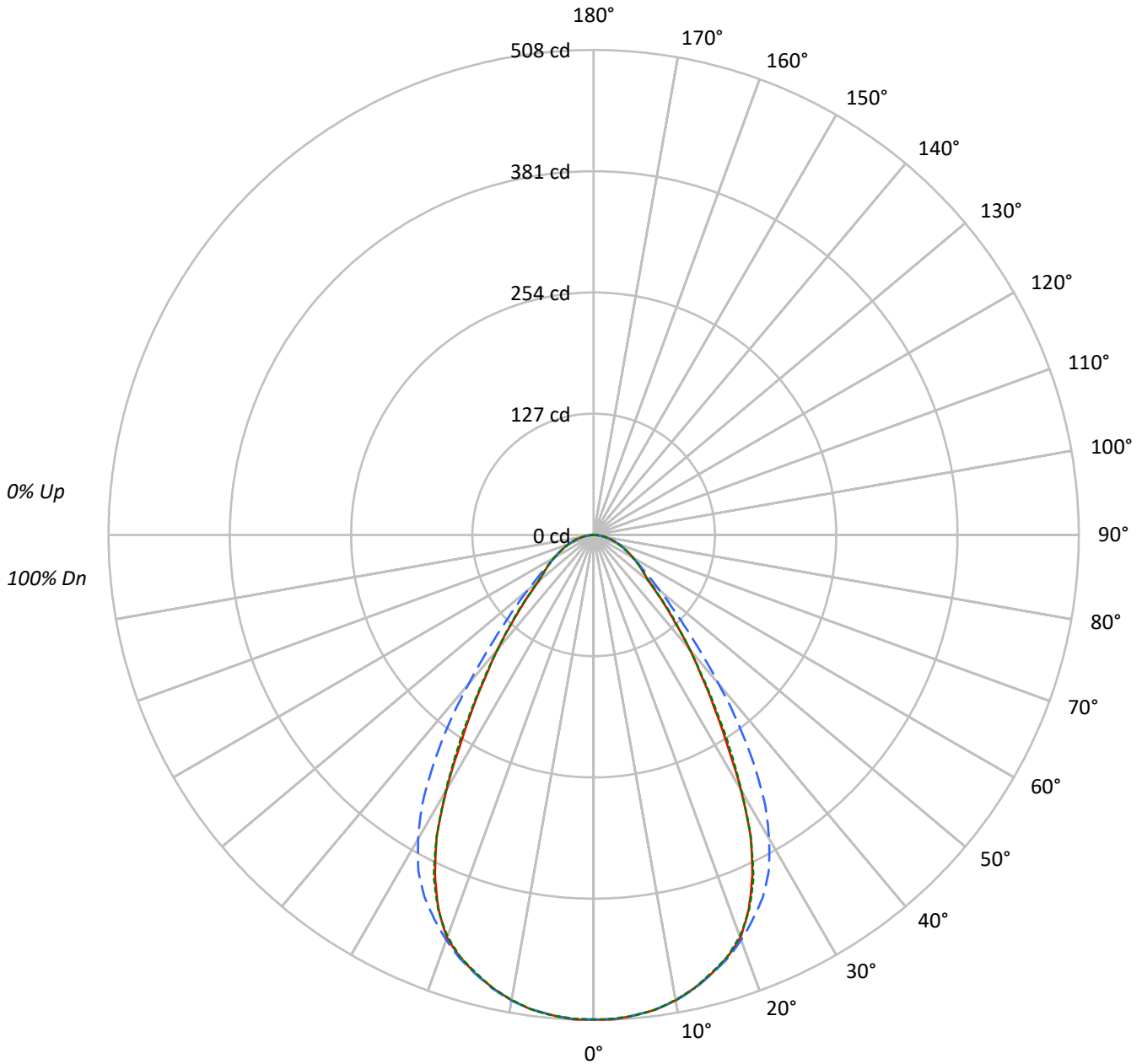
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 736.6 lumens
Efficiency: N/A
Efficacy: 92.1 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.07
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 8
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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89								
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79								
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71								
4	91	81	74	69	89	80	73	68	77	72	67	75	70	66	73	69	66	64								
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58								
6	79	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53								
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48								
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44								
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41								
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	49174	49174	49174
5°	49090	49090	49128
10°	48693	48732	48654
15°	47739	47780	47669
20°	46309	46557	46144
25°	42029	44776	42329
30°	34498	41121	34633
35°	25935	34521	26302
40°	19753	25735	19703
45°	14755	18262	15015
50°	11228	13609	11469
55°	10117	10657	10117
60°	9242	9164	9164
65°	8413	8413	8413
70°	7818	7704	7704
75°	7224	7074	7224
80°	6583	6360	6583
85°	5669	5669	5669

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 18262 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.9	6.5
10°-20°	134.0	18.2
20°-30°	184.3	25.0
30°-40°	156.9	21.3
40°-50°	94.8	12.9
50°-60°	55.8	7.6
60°-70°	36.6	5.0
70°-80°	20.3	2.8
80°-90°	5.9	0.8
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°	366.2	49.7
0°-40°	523.1	71.0
0°-60°	673.7	91.5
0°-90°	736.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	736.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	508	508	508	508	508	
5°	505	505	505	504	505	48
15°	476	477	476	476	475	134
25°	393	405	419	406	396	178
35°	219	241	292	248	222	139
45°	108	119	133	120	110	85
55°	60	61	63	61	60	54
65°	37	37	37	37	37	37
75°	19	19	19	19	19	20
85°	5	5	5	5	5	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	507.6	507.6	507.6	507.6	507.6
2.5°	508.0	506.8	507.2	506.8	507.2
5°	504.8	505.2	504.8	504.4	505.2
7.5°	501.3	500.9	500.9	500.5	501.3
10°	495.0	494.2	495.4	494.6	494.6
12.5°	486.3	487.5	487.1	487.1	486.3
15°	476.0	477.2	476.4	476.0	475.3
17.5°	464.2	465.0	465.4	463.8	463.8
20°	449.2	450.8	451.6	448.8	447.6
22.5°	424.4	431.5	435.8	431.1	425.2
25°	393.2	405.4	418.9	406.2	396.0
27.5°	355.8	373.1	397.2	375.9	355.8
30°	308.4	334.1	367.6	336.8	309.6
32.5°	259.5	286.7	333.7	291.5	265.0
35°	219.3	241.4	291.9	248.1	222.4
37.5°	184.6	203.5	248.1	207.9	186.6
40°	156.2	171.2	203.5	173.1	155.8
42.5°	129.0	143.2	164.9	145.1	130.5
45°	107.7	119.1	133.3	120.3	109.6
47.5°	89.5	99.0	109.2	99.0	90.7
50°	74.5	82.0	90.3	82.0	76.1
52.5°	66.7	69.0	74.5	69.4	66.7
55°	59.9	61.1	63.1	61.1	59.9
57.5°	53.6	54.4	54.0	54.0	53.6
60°	47.7	48.1	47.3	47.7	47.3
62.5°	42.2	42.2	41.4	42.2	41.8
65°	36.7	37.1	36.7	36.7	36.7
67.5°	31.9	31.9	31.6	31.9	31.9
70°	27.6	27.6	27.2	27.6	27.2
72.5°	23.3	23.3	22.9	22.9	22.9
75°	19.3	19.3	18.9	18.9	19.3
77.5°	15.4	15.4	15.0	15.4	15.4
80°	11.8	11.8	11.4	11.8	11.8
82.5°	8.3	8.3	8.3	8.7	8.7
85°	5.1	5.1	5.1	5.1	5.1
87.5°	2.4	2.4	2.4	2.4	2.8
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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