

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: P837264

Luminaire Tested: HCSQ407D010-HM40525935-41SQH

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837264
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: HCSQ407D010-HM40525935-41SQH
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

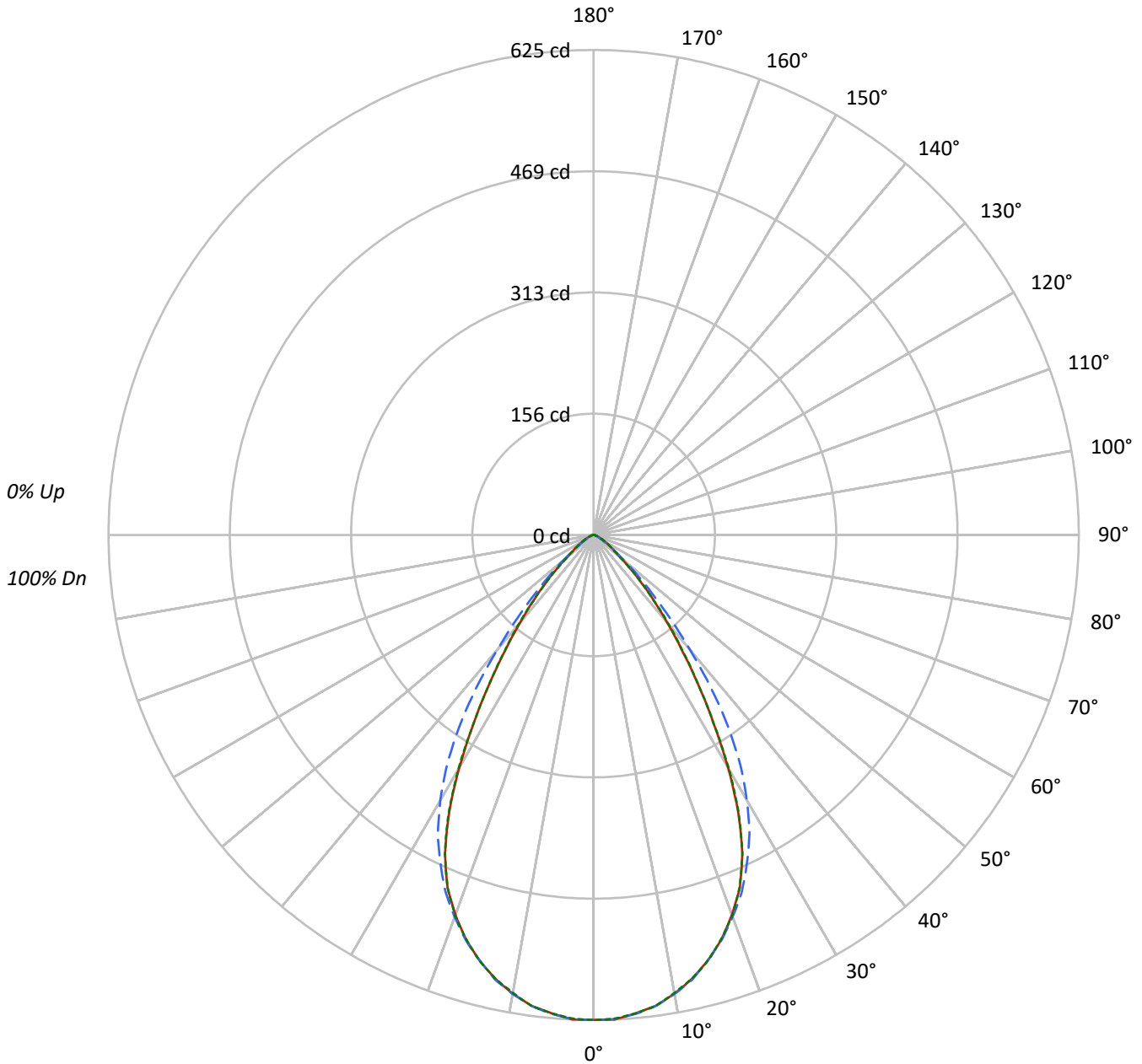
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 702.7 lumens
Efficiency: N/A
Efficacy: 87.8 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): 8
Input Voltage (V): NR
Input Current (Ain): 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°	60557	60557	60557
5°	60185	60263	60185
10°	59061	59101	58943
15°	56966	56926	56996
20°	53691	53979	53814
25°	48453	49939	48453
30°	38693	44186	38995
35°	27626	35751	27674
40°	18653	24319	18944
45°	11851	14385	11906
50°	6752	7686	6511
55°	4442	3716	4374
60°	3061	2170	2984
65°	2132	1582	2132
70°	1530	1190	1530
75°	1011	1011	1011
80°	669	837	837
85°	889	889	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 14385 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.6	8.3
10°-20°	159.2	22.7
20°-30°	208.5	29.7
30°-40°	163.9	23.3
40°-50°	76.5	10.9
50°-60°	23.7	3.4
60°-70°	8.5	1.2
70°-80°	3.0	0.4
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°	426.3	60.7
0°-40°	590.2	84.0
0°-60°	690.4	98.3
0°-90°	702.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	702.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	625	625	625	625	625	
5°	619	619	620	620	619	59
15°	568	568	568	568	568	159
25°	453	460	467	460	453	204
35°	234	255	302	258	234	147
45°	86	97	105	95	87	69
55°	26	25	22	24	26	25
65°	9	8	7	8	9	10
75°	3	3	3	3	3	3
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	625.1	625.1	625.1	625.1	625.1
2.5°	625.1	624.3	624.7	623.9	623.9
5°	618.9	619.3	619.7	620.5	618.9
7.5°	612.0	612.7	612.4	612.4	612.4
10°	600.4	600.8	600.8	600.8	599.2
12.5°	585.7	586.5	586.9	585.7	585.7
15°	568.0	568.0	567.6	568.0	568.3
17.5°	546.7	547.9	547.9	546.7	546.3
20°	520.8	522.8	523.6	522.0	522.0
22.5°	491.9	493.8	498.5	494.6	491.5
25°	453.3	459.5	467.2	459.8	453.3
27.5°	403.5	417.0	434.7	419.3	404.6
30°	345.9	368.0	395.0	369.1	348.6
32.5°	287.3	312.0	351.7	313.9	287.3
35°	233.6	254.8	302.3	257.9	234.0
37.5°	185.7	206.2	247.9	208.5	188.4
40°	147.5	164.1	192.3	163.7	149.8
42.5°	115.1	127.0	145.6	126.6	114.7
45°	86.5	96.9	105.0	95.0	86.9
47.5°	63.7	70.7	75.3	69.5	62.2
50°	44.8	49.8	51.0	48.6	43.2
52.5°	33.6	33.6	34.0	33.2	32.8
55°	26.3	24.7	22.0	24.3	25.9
57.5°	20.5	18.9	15.4	18.1	20.1
60°	15.8	14.3	11.2	13.9	15.4
62.5°	12.4	10.8	8.9	10.8	12.0
65°	9.3	8.5	6.9	8.1	9.3
67.5°	6.9	6.2	5.4	6.2	6.9
70°	5.4	5.0	4.2	4.6	5.4
72.5°	3.9	3.5	3.5	3.5	3.9
75°	2.7	2.7	2.7	2.7	2.7
77.5°	1.9	1.9	1.9	1.9	1.9
80°	1.2	1.2	1.5	1.5	1.5
82.5°	0.8	0.8	1.2	1.2	1.2
85°	0.8	0.8	0.8	0.8	0.8
87.5°	0.4	0.4	0.4	0.8	0.8
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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