

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: P838534

Luminaire Tested: HCSQ635D010-HM63040827-61SQC

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838534
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ635D010-HM63040827-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

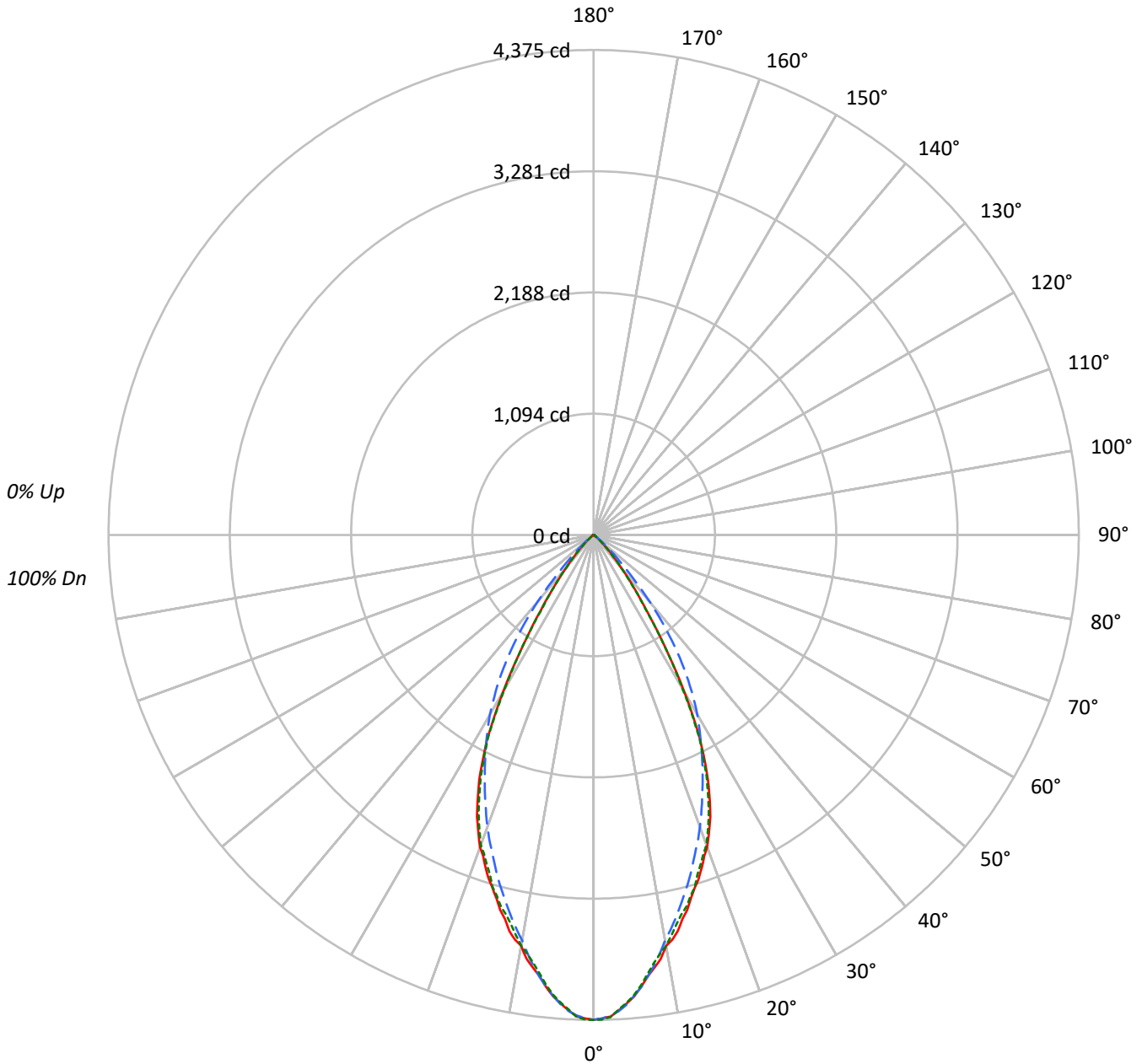
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3277.2 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 34
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	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94																			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76																			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71																			
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66																			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62																			
8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59																			
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55																			
10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	188377	188377	188377
5°	180695	180379	180129
10°	164579	162341	164448
15°	151250	145714	150336
20°	137260	128421	136325
25°	116007	110382	114410
30°	81227	92920	79845
35°	43626	71278	42785
40°	21600	44104	21437
45°	9432	18596	9255
50°	3034	6752	3034
55°	1539	2192	1426
60°	1008	1008	1008
65°	744	744	744
70°	554	554	554
75°	482	482	482
80°	372	372	372
85°	741	741	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 18596 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	384.2	11.7
10°-20°	927.7	28.3
20°-30°	1071.7	32.7
30°-40°	669.3	20.4
40°-50°	185.9	5.7
50°-60°	26.0	0.8
60°-70°	7.6	0.2
70°-80°	3.3	0.1
80°-90°	1.4	0.0
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°	2383.6	72.7
0°-40°	3052.9	93.2
0°-60°	3264.8	99.6
0°-90°	3277.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3277.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4375	4375	4375	4375	4375	
5°	4181	4169	4174	4168	4168	385
15°	3393	3329	3269	3320	3373	950
25°	2442	2370	2324	2369	2408	1091
35°	830	1024	1356	1013	814	552
45°	155	197	305	196	152	134
55°	20	20	29	20	19	20
65°	7	7	7	7	7	8
75°	3	3	3	3	3	3
85°	2	2	2	2	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4375.2	4375.2	4375.2	4375.2	4375.2
1°	4362.0	4362.0	4362.0	4373.7	4373.7
2°	4348.9	4346.0	4338.7	4347.4	4351.8
3°	4294.8	4300.7	4303.6	4299.2	4289.0
4°	4239.3	4233.5	4249.5	4239.3	4230.5
5°	4180.8	4169.2	4173.5	4167.7	4167.7
6°	4099.0	4113.6	4101.9	4091.7	4085.9
7°	4009.9	4021.6	4014.3	3999.6	3989.4
8°	3939.7	3932.4	3920.7	3917.8	3900.3
9°	3872.5	3846.2	3819.9	3824.3	3828.7
10°	3764.4	3767.3	3713.2	3754.1	3761.4
11°	3719.1	3703.0	3631.4	3665.0	3676.7
12°	3653.3	3602.2	3540.8	3568.5	3590.5
13°	3558.3	3505.7	3450.2	3492.6	3514.5
14°	3486.7	3426.8	3356.7	3410.7	3456.0
15°	3393.2	3328.9	3269.0	3320.1	3372.7
16°	3311.4	3236.8	3176.9	3226.6	3305.5
17°	3239.8	3147.7	3074.6	3127.2	3203.2
18°	3156.5	3049.8	2982.6	3038.1	3124.3
19°	3064.4	2956.3	2896.3	2941.6	3041.0
20°	2995.7	2874.4	2802.8	2846.7	2975.3
22.5°	2750.2	2623.1	2557.3	2609.9	2712.2
25°	2441.9	2370.3	2323.5	2368.8	2408.3
27.5°	2076.5	2076.5	2092.6	2073.6	2061.9
30°	1633.8	1752.1	1869.0	1746.3	1606.0
32.5°	1192.4	1382.4	1617.7	1407.3	1191.0
35°	830.0	1024.4	1356.1	1012.7	814.0
37.5°	577.2	705.8	1069.7	713.1	569.9
40°	384.3	473.5	784.7	482.2	381.4
42.5°	251.3	312.7	507.1	314.2	245.5
45°	154.9	197.3	305.4	195.8	152.0
47.5°	90.6	116.9	178.3	118.4	89.1
50°	45.3	68.7	100.8	67.2	45.3
52.5°	26.3	36.5	55.5	35.1	26.3
55°	20.5	20.5	29.2	20.5	19.0
57.5°	16.1	16.1	16.1	16.1	14.6
60°	11.7	13.2	11.7	11.7	11.7
62.5°	10.2	10.2	8.8	10.2	8.8
65°	7.3	7.3	7.3	7.3	7.3
67.5°	5.8	5.8	5.8	5.8	5.8
70°	4.4	4.4	4.4	4.4	4.4
72.5°	2.9	4.4	2.9	4.4	4.4
75°	2.9	2.9	2.9	2.9	2.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.5	1.5	1.5	1.5	1.5
85°	1.5	1.5	1.5	1.5	1.5
87.5°	1.5	1.5	1.5	1.5	1.5
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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77.5°	2.9	2.9	2.9	2.9	1.5
80°	1.5	1.5	1.5	1.5	1.5

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(END OF REPORT)