

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: P838579

Luminaire Tested: HCSQ640D010-HM63040830-61SQC

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838579
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: HCSQ640D010-HM63040830-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

Summary

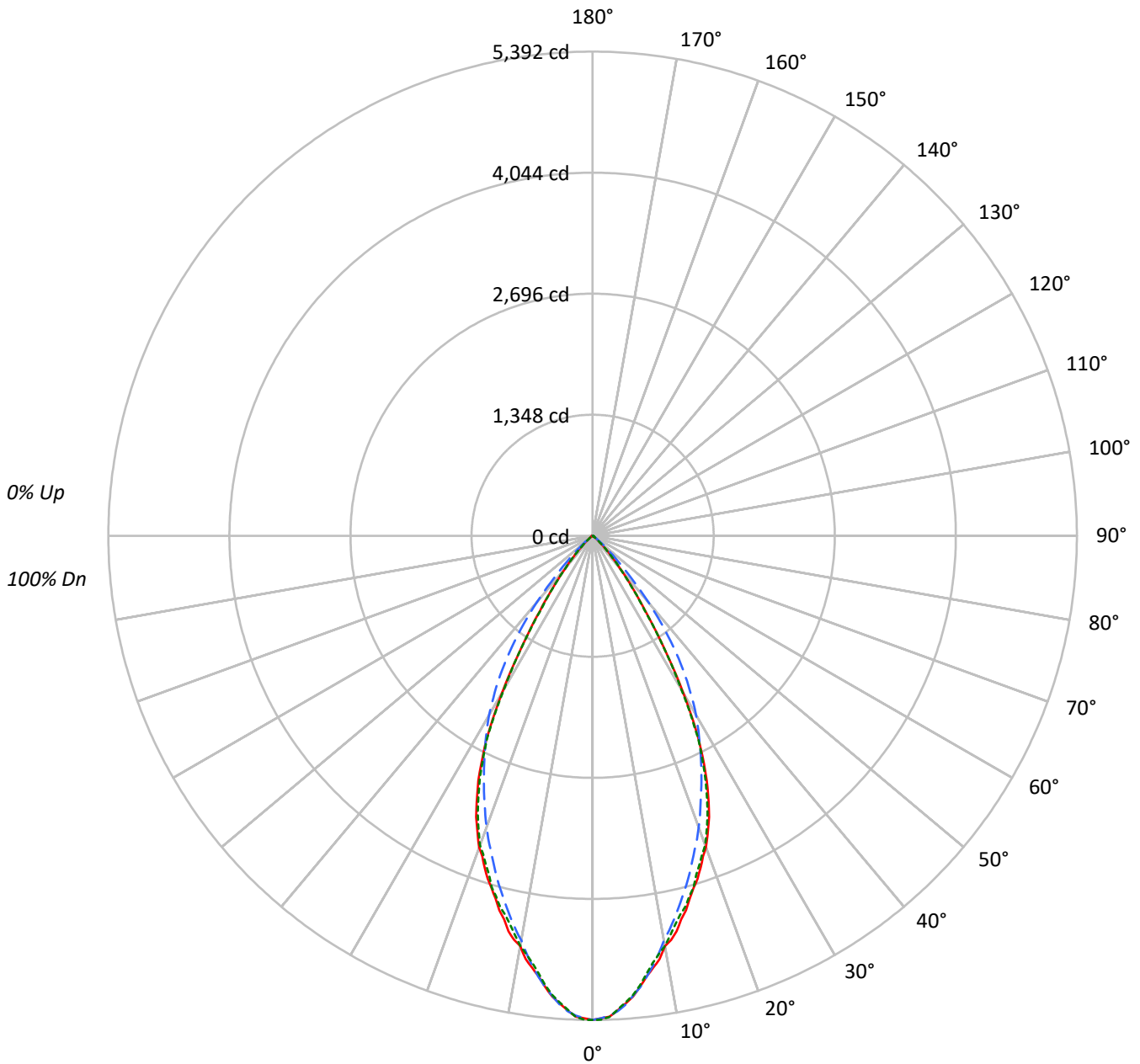
Lumens per Lamp: N/A
Luminaire Lumens: 4038.7 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 41
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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CATALOG NUMBER: HCSQ640D010-HM63040830-61SQC

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°	232156	232156	232156
5°	222692	222298	221987
10°	202825	200071	202668
15°	186402	179577	185274
20°	169159	158268	168004
25°	142962	136035	140995
30°	100099	114517	98399
35°	53765	87846	52724
40°	26619	54356	26416
45°	11624	22919	11405
50°	3738	8326	3738
55°	1892	2702	1757
60°	1240	1240	1240
65°	917	917	917
70°	680	680	680
75°	599	599	599
80°	446	446	446
85°	889	889	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 22919 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	473.5	11.7
10°-20°	1143.3	28.3
20°-30°	1320.7	32.7
30°-40°	824.8	20.4
40°-50°	229.1	5.7
50°-60°	32.0	0.8
60°-70°	9.4	0.2
70°-80°	4.0	0.1
80°-90°	1.7	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°	2937.6	72.7
0°-40°	3762.3	93.2
0°-60°	4023.5	99.6
0°-90°	4038.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4038.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5392	5392	5392	5392	5392	
5°	5152	5138	5143	5136	5136	475
15°	4182	4102	4029	4092	4156	1171
25°	3009	2921	2864	2919	2968	1344
35°	1023	1262	1671	1248	1003	680
45°	191	243	376	241	187	165
55°	25	25	36	25	23	25
65°	9	9	9	9	9	10
75°	4	4	4	4	4	4
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5392.0	5392.0	5392.0	5392.0	5392.0
1°	5375.8	5375.8	5375.8	5390.2	5390.2
2°	5359.6	5356.0	5347.0	5357.8	5363.2
3°	5292.9	5300.1	5303.7	5298.3	5285.7
4°	5224.5	5217.3	5237.1	5224.5	5213.7
5°	5152.5	5138.0	5143.4	5136.2	5136.2
6°	5051.6	5069.6	5055.2	5042.6	5035.4
7°	4941.7	4956.2	4947.1	4929.1	4916.5
8°	4855.3	4846.3	4831.9	4828.3	4806.7
9°	4772.5	4740.0	4707.6	4713.0	4718.4
10°	4639.2	4642.8	4576.2	4626.6	4635.6
11°	4583.4	4563.5	4475.3	4516.7	4531.1
12°	4502.3	4439.3	4363.6	4397.9	4424.9
13°	4385.3	4320.4	4252.0	4304.2	4331.2
14°	4297.0	4223.2	4136.7	4203.4	4259.2
15°	4181.8	4102.5	4028.7	4091.7	4156.5
16°	4080.9	3989.1	3915.2	3976.4	4073.7
17°	3992.7	3879.2	3789.2	3854.0	3947.6
18°	3890.0	3758.5	3675.7	3744.1	3850.4
19°	3776.5	3643.3	3569.4	3625.3	3747.7
20°	3691.9	3542.4	3454.2	3508.2	3666.7
22.5°	3389.3	3232.7	3151.6	3216.5	3342.5
25°	3009.3	2921.1	2863.5	2919.3	2967.9
27.5°	2559.1	2559.1	2578.9	2555.5	2541.1
30°	2013.4	2159.3	2303.4	2152.1	1979.2
32.5°	1469.6	1703.7	1993.6	1734.3	1467.8
35°	1022.9	1262.4	1671.3	1248.0	1003.1
37.5°	711.4	869.8	1318.3	878.9	702.4
40°	473.6	583.5	967.1	594.3	470.0
42.5°	309.8	385.4	624.9	387.2	302.6
45°	190.9	243.1	376.4	241.3	187.3
47.5°	111.7	144.1	219.7	145.9	109.9
50°	55.8	84.6	124.3	82.8	55.8
52.5°	32.4	45.0	68.4	43.2	32.4
55°	25.2	25.2	36.0	25.2	23.4
57.5°	19.8	19.8	19.8	19.8	18.0
60°	14.4	16.2	14.4	14.4	14.4
62.5°	12.6	12.6	10.8	12.6	10.8
65°	9.0	9.0	9.0	9.0	9.0
67.5°	7.2	7.2	7.2	7.2	7.2
70°	5.4	5.4	5.4	5.4	5.4
72.5°	3.6	5.4	3.6	5.4	5.4
75°	3.6	3.6	3.6	3.6	3.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.8	1.8	1.8	1.8	1.8
85°	1.8	1.8	1.8	1.8	1.8
87.5°	1.8	1.8	1.8	1.8	1.8
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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77.5°	3.6	3.6	3.6	3.6	1.8
80°	1.8	1.8	1.8	1.8	1.8

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