

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: P838555

Luminaire Tested: HCSQ635D010-HM63040927-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838555
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ635D010-HM63040927-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

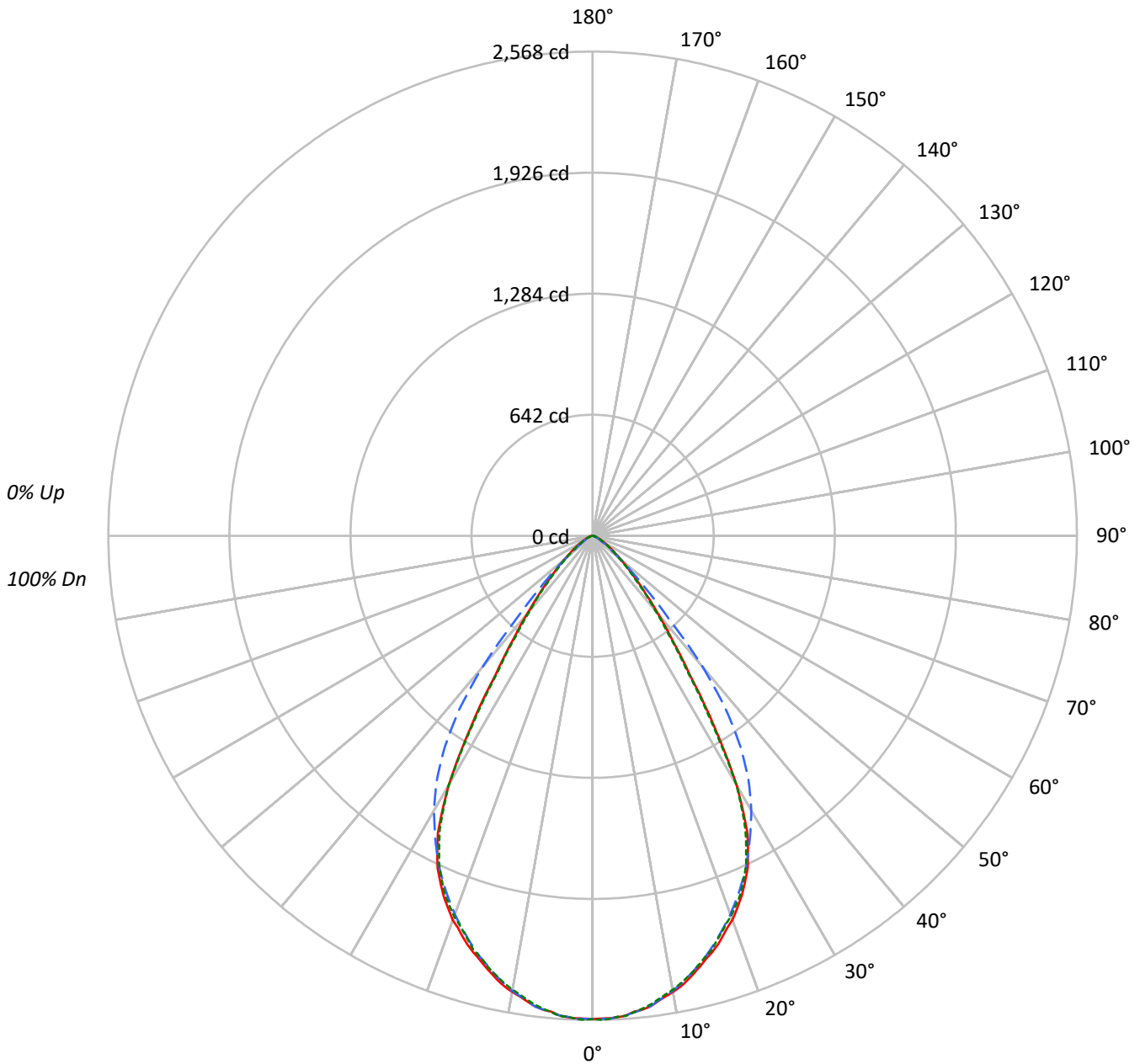
Lumens per Lamp: N/A
Luminaire Lumens: 2882.9 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92																			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85																			
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78																			
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71																			
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66																			
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61																			
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56																			
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52																			
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48																			
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	110365	110365	110365
5°	109498	109680	109619
10°	107407	107157	106908
15°	103613	103043	102980
20°	99340	97906	98364
25°	92462	91655	91450
30°	75982	83618	75773
35°	46927	71814	45807
40°	30126	50899	29086
45°	19649	24673	18699
50°	13048	12285	12191
55°	8858	6403	8220
60°	6002	3918	5511
65°	4197	2893	3769
70°	2681	2153	2505
75°	1896	1664	1664
80°	1413	1066	1066
85°	692	1383	692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 24673 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.4	8.3
10°-20°	649.7	22.5
20°-30°	877.1	30.4
30°-40°	684.5	23.7
40°-50°	286.8	9.9
50°-60°	97.2	3.4
60°-70°	34.7	1.2
70°-80°	11.3	0.4
80°-90°	2.3	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°	1766.2	61.3
0°-40°	2450.7	85.0
0°-60°	2834.7	98.3
0°-90°	2882.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2882.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2563	2563	2563	2563	2563	
5°	2534	2536	2538	2534	2536	240
15°	2324	2319	2312	2309	2310	654
25°	1946	1938	1929	1929	1925	875
35°	893	1048	1366	1046	872	587
45°	323	346	405	330	307	259
55°	118	108	85	102	110	109
65°	41	34	28	33	37	42
75°	11	10	10	10	10	13
85°	1	1	3	1	1	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2563.3	2563.3	2563.3	2563.3	2563.3
1°	2560.5	2564.8	2561.9	2563.3	2567.6
2°	2560.5	2560.5	2563.3	2561.9	2563.3
3°	2557.7	2557.7	2554.8	2554.8	2554.8
4°	2549.1	2549.1	2549.1	2546.3	2552.0
5°	2533.5	2536.3	2537.7	2533.5	2536.3
6°	2527.8	2529.2	2526.4	2525.0	2522.1
7°	2515.0	2510.7	2515.0	2505.0	2506.5
8°	2493.7	2493.7	2490.8	2488.0	2485.1
9°	2473.8	2473.8	2470.9	2466.7	2463.8
10°	2456.7	2452.4	2451.0	2446.8	2445.3
11°	2436.8	2428.3	2426.9	2422.6	2422.6
12°	2412.6	2408.4	2398.4	2397.0	2397.0
13°	2382.8	2378.5	2371.4	2365.7	2371.4
14°	2354.3	2351.5	2338.7	2343.0	2341.6
15°	2324.5	2318.8	2311.7	2308.9	2310.3
16°	2297.5	2287.5	2277.6	2279.0	2287.5
17°	2269.0	2254.8	2244.9	2243.5	2247.7
18°	2233.5	2222.1	2206.5	2212.2	2212.2
19°	2198.0	2182.3	2172.4	2170.9	2176.6
20°	2168.1	2143.9	2136.8	2135.4	2146.8
22.5°	2065.7	2041.6	2035.9	2041.6	2052.9
25°	1946.3	1937.8	1929.3	1929.3	1925.0
27.5°	1777.1	1797.0	1807.0	1787.1	1754.4
30°	1528.3	1612.2	1681.9	1602.3	1524.1
32.5°	1204.2	1377.6	1538.3	1373.4	1175.8
35°	892.8	1047.8	1366.3	1046.4	871.5
37.5°	688.1	787.6	1161.5	774.8	668.2
40°	536.0	594.3	905.6	587.2	517.5
42.5°	416.6	453.5	602.8	445.0	402.3
45°	322.7	345.5	405.2	329.8	307.1
47.5°	251.6	261.6	277.2	250.2	237.4
50°	194.8	194.8	183.4	187.7	182.0
52.5°	150.7	145.0	123.7	136.5	139.3
55°	118.0	108.0	85.3	102.4	109.5
57.5°	89.6	79.6	61.1	75.4	82.5
60°	69.7	59.7	45.5	56.9	64.0
62.5°	54.0	45.5	35.5	42.7	48.3
65°	41.2	34.1	28.4	32.7	37.0
67.5°	31.3	25.6	21.3	24.2	28.4
70°	21.3	19.9	17.1	18.5	19.9
72.5°	15.6	14.2	12.8	12.8	14.2
75°	11.4	10.0	10.0	10.0	10.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	2.8	2.8	2.8	2.8	2.8
85°	1.4	1.4	2.8	1.4	1.4
87.5°	1.4	1.4	1.4	1.4	1.4
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°	7.1	7.1	7.1	7.1	7.1
80°	5.7	5.7	4.3	4.3	4.3

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(END OF REPORT)