

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: P838542

Luminaire Tested: HCSQ635D010-HM63040830-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838542
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ635D010-HM63040830-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

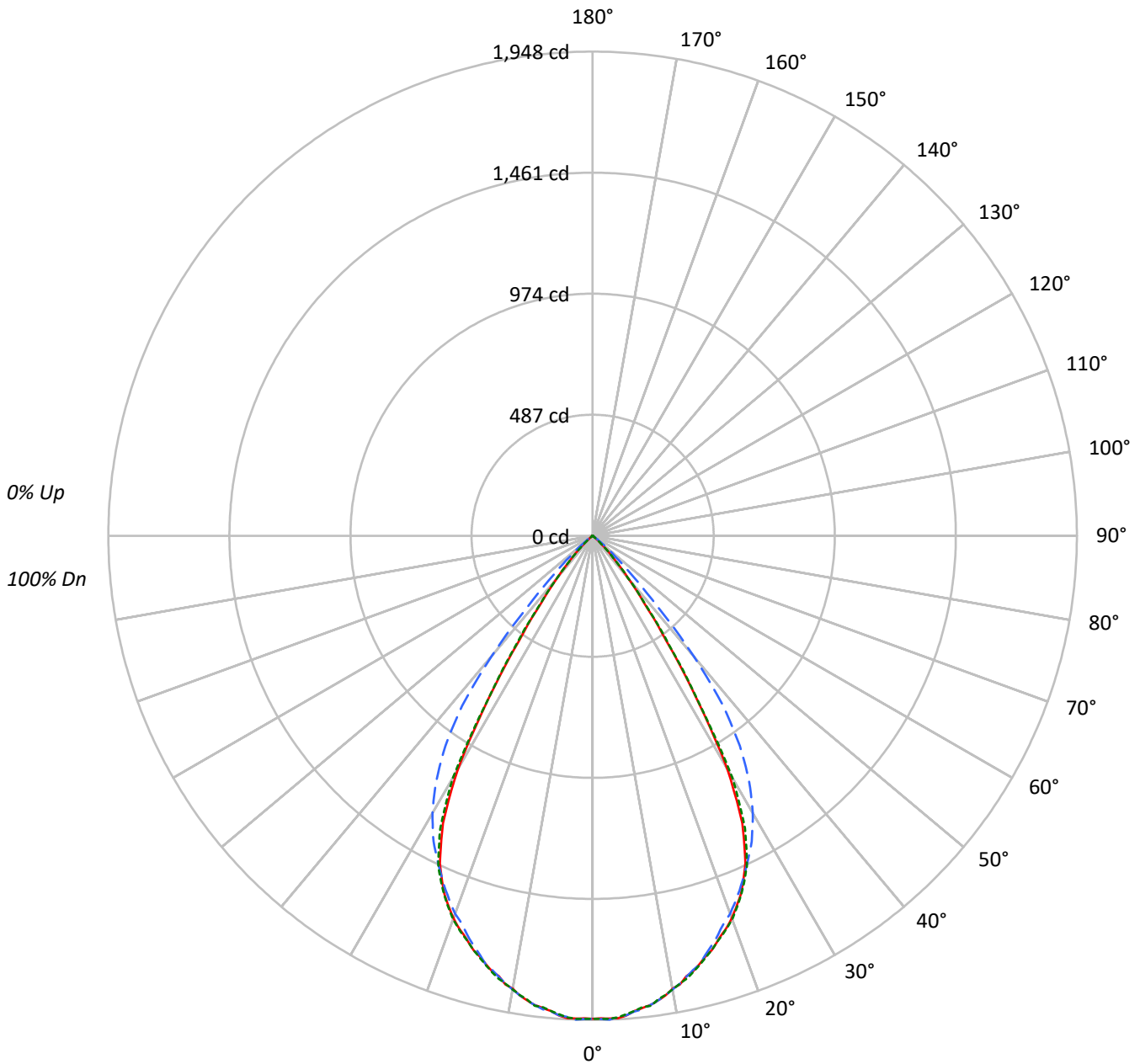
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1931.9 lumens
Efficiency: N/A
Efficacy: 56.8 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.01 / 1.03
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	106	104	105	103	101	101	99	98	97	96	95	93																			
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87																			
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81																			
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75																			
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70																			
6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65																			
7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60																			
8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56																			
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53																			
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	83679	83679	83679
5°	82974	83043	82974
10°	80895	81035	81035
15°	78112	77903	78326
20°	75015	74144	75230
25°	69075	69602	69754
30°	53843	64050	55886
35°	27300	54269	28299
40°	12421	35494	12421
45°	4804	13359	4713
50°	744	4233	744
55°	240	833	240
60°	138	138	138
65°	163	0	163
70°	0	0	201
75°	0	0	266
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13359 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.5	9.4
10°-20°	492.1	25.5
20°-30°	663.4	34.3
30°-40°	466.4	24.1
40°-50°	119.1	6.2
50°-60°	8.2	0.4
60°-70°	1.0	0.1
70°-80°	0.1	0.0
80°-90°	0.0	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°	1337.0	69.2
0°-40°	1803.5	93.3
0°-60°	1930.8	99.9
0°-90°	1931.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1931.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1944	1944	1944	1944	1944	
5°	1920	1923	1921	1923	1920	181
15°	1752	1749	1748	1752	1757	493
25°	1454	1459	1465	1470	1468	650
35°	519	688	1032	706	538	350
45°	79	118	219	120	77	69
55°	3	3	11	3	3	4
65°	2	2	0	2	2	1
75°	0	0	0	0	2	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1943.5	1943.5	1943.5	1943.5	1943.5
1°	1941.9	1943.5	1945.0	1945.0	1943.5
2°	1943.5	1938.7	1948.2	1943.5	1945.0
3°	1943.5	1934.0	1938.7	1941.9	1940.3
4°	1935.6	1929.3	1934.0	1932.4	1929.3
5°	1919.8	1922.9	1921.4	1922.9	1919.8
6°	1910.3	1913.5	1916.6	1911.9	1907.2
7°	1902.4	1900.8	1902.4	1905.6	1905.6
8°	1888.2	1891.4	1888.2	1889.8	1885.0
9°	1872.4	1872.4	1872.4	1875.6	1870.8
10°	1850.3	1858.2	1853.5	1856.6	1853.5
11°	1839.3	1836.1	1836.1	1837.7	1836.1
12°	1812.4	1815.6	1814.0	1817.2	1821.9
13°	1798.2	1799.8	1793.5	1801.4	1801.4
14°	1776.1	1774.5	1777.7	1776.1	1779.3
15°	1752.4	1749.3	1747.7	1752.4	1757.2
16°	1735.1	1727.2	1722.4	1728.8	1735.1
17°	1709.8	1701.9	1695.6	1708.2	1709.8
18°	1684.5	1681.4	1665.6	1681.4	1689.3
19°	1664.0	1653.0	1638.8	1656.1	1665.6
20°	1637.2	1627.7	1618.2	1627.7	1641.9
22.5°	1559.8	1551.9	1544.0	1555.1	1563.0
25°	1454.0	1458.8	1465.1	1469.8	1468.3
27.5°	1304.1	1346.7	1386.2	1360.9	1327.7
30°	1083.0	1190.4	1288.3	1207.8	1124.1
32.5°	784.6	967.8	1171.4	1004.1	792.5
35°	519.4	688.3	1032.5	705.7	538.4
37.5°	337.9	462.6	862.0	464.2	353.6
40°	221.0	301.5	631.5	307.9	221.0
42.5°	135.8	191.0	383.6	198.9	135.8
45°	78.9	118.4	219.4	120.0	77.4
47.5°	36.3	64.7	124.7	63.2	37.9
50°	11.1	28.4	63.2	28.4	11.1
52.5°	4.7	7.9	30.0	7.9	4.7
55°	3.2	3.2	11.1	3.2	3.2
57.5°	3.2	1.6	3.2	3.2	3.2
60°	1.6	1.6	1.6	1.6	1.6
62.5°	1.6	1.6	1.6	1.6	1.6
65°	1.6	1.6	0.0	1.6	1.6
67.5°	1.6	0.0	0.0	0.0	1.6
70°	0.0	0.0	0.0	0.0	1.6
72.5°	0.0	0.0	0.0	0.0	1.6
75°	0.0	0.0	0.0	0.0	1.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0

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