

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: P838438

Luminaire Tested: HCSQ620D010-HM60525927-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838438
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ620D010-HM60525927-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

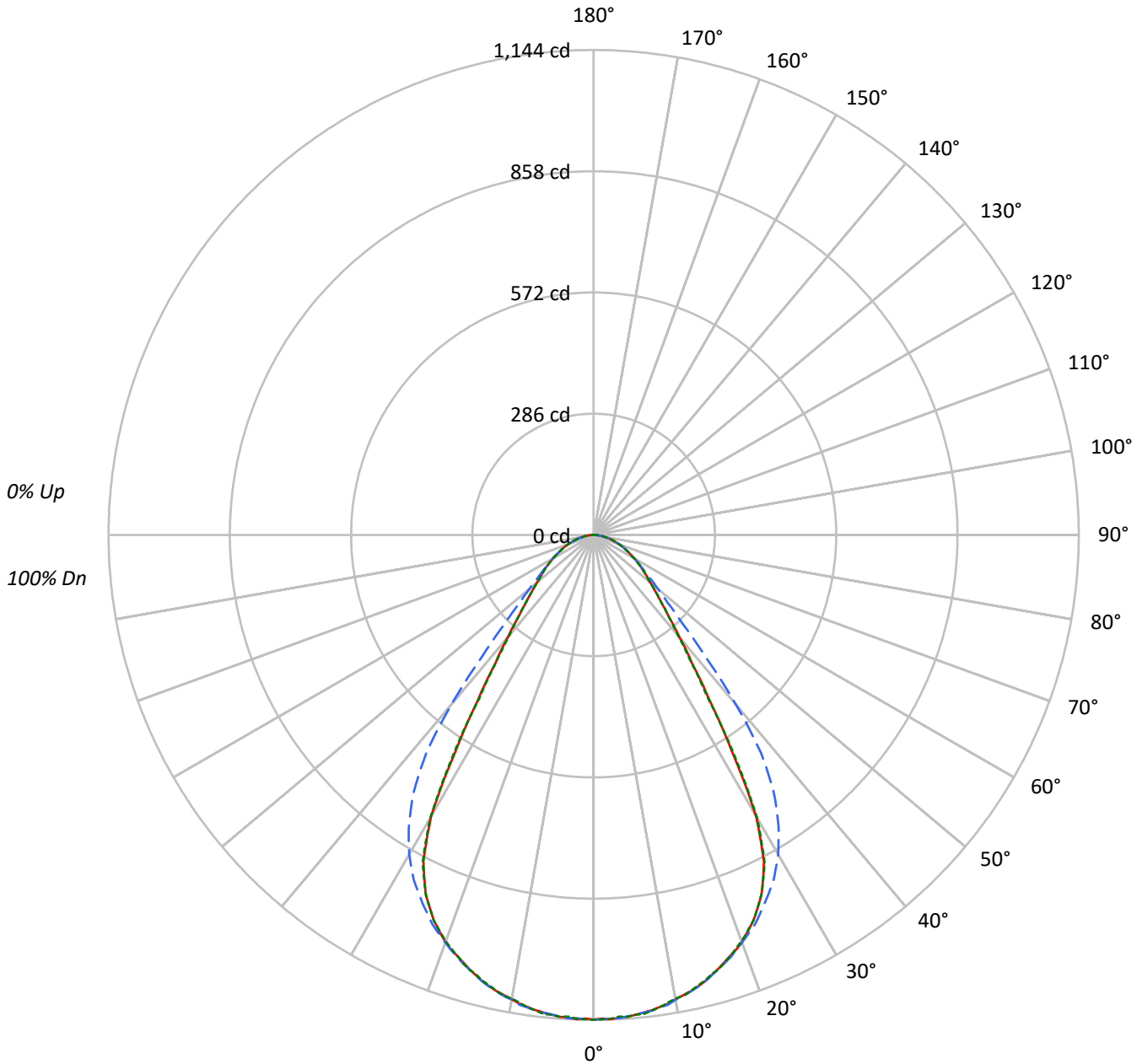
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1686.8 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 20
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					20					
RC	80					70					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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89								
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79								
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71								
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64								
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58								
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53								
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48								
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44								
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41								
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	49234	49234	49234
5°	49111	49076	49111
10°	48634	48669	48564
15°	47909	47944	47837
20°	46831	46868	46722
25°	44495	45440	44457
30°	38098	43263	38336
35°	25035	38895	24656
40°	17693	29328	17384
45°	13718	18054	13816
50°	11668	13169	11561
55°	10494	10794	10494
60°	9498	9498	9498
65°	8711	8629	8629
70°	7943	7943	8044
75°	7453	7187	7320
80°	6546	6546	6546
85°	5533	5533	5533

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 18054 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.8	6.4
10°-20°	302.8	17.9
20°-30°	431.4	25.6
30°-40°	367.9	21.8
40°-50°	203.5	12.1
50°-60°	128.2	7.6
60°-70°	85.1	5.0
70°-80°	46.8	2.8
80°-90°	13.3	0.8
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°	842.0	49.9
0°-40°	1209.8	71.7
0°-60°	1541.5	91.4
0°-90°	1686.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1686.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1144	1144	1144	1144	1144	
5°	1136	1138	1136	1134	1136	108
15°	1075	1075	1076	1075	1073	303
25°	937	948	956	947	936	423
35°	476	562	740	563	469	310
45°	225	247	296	245	227	179
55°	140	142	144	141	140	126
65°	86	86	85	86	85	85
75°	45	44	43	44	44	47
85°	11	11	11	12	11	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1143.5	1143.5	1143.5	1143.5	1143.5
1°	1141.1	1142.7	1142.7	1141.9	1142.7
2°	1143.5	1141.1	1141.1	1141.1	1141.9
3°	1140.3	1141.9	1141.9	1139.5	1137.9
4°	1139.5	1138.7	1138.7	1141.1	1139.5
5°	1136.3	1137.9	1135.5	1133.9	1136.3
6°	1133.1	1133.9	1133.1	1133.9	1136.3
7°	1129.1	1131.5	1130.7	1129.9	1129.9
8°	1124.3	1127.5	1125.9	1125.9	1125.1
9°	1119.6	1120.4	1122.0	1122.0	1117.2
10°	1112.4	1114.8	1113.2	1114.0	1110.8
11°	1106.0	1109.2	1108.4	1106.8	1107.6
12°	1100.4	1102.0	1101.2	1098.8	1099.6
13°	1093.2	1094.8	1094.0	1094.0	1091.6
14°	1085.2	1083.6	1086.0	1084.4	1083.6
15°	1074.8	1074.8	1075.6	1074.8	1073.2
16°	1065.2	1066.0	1066.0	1065.2	1066.0
17°	1054.0	1057.2	1056.4	1054.8	1055.6
18°	1043.6	1046.0	1046.8	1046.0	1043.6
19°	1034.0	1035.6	1034.8	1031.7	1031.7
20°	1022.1	1022.9	1022.9	1021.3	1019.7
22.5°	984.5	990.1	994.1	990.9	984.5
25°	936.6	947.7	956.5	946.9	935.8
27.5°	869.4	891.8	918.2	894.2	873.4
30°	766.3	817.5	870.2	822.3	771.1
32.5°	609.7	710.4	811.1	720.0	619.3
35°	476.3	561.8	740.0	562.6	469.1
37.5°	380.4	441.1	648.9	437.1	376.4
40°	314.8	355.6	521.8	354.0	309.3
42.5°	262.9	294.1	390.8	290.9	262.9
45°	225.3	246.9	296.5	245.3	226.9
47.5°	197.4	211.0	237.3	210.2	197.4
50°	174.2	182.2	196.6	181.4	172.6
52.5°	155.8	160.6	166.2	159.0	154.2
55°	139.8	142.2	143.8	141.4	139.8
57.5°	124.7	126.3	125.5	124.7	123.9
60°	110.3	111.1	110.3	111.1	110.3
62.5°	97.5	98.3	96.7	97.5	96.7
65°	85.5	86.3	84.7	85.5	84.7
67.5°	74.3	74.3	74.3	74.3	73.5
70°	63.1	63.9	63.1	63.9	63.9
72.5°	53.5	53.5	52.7	53.5	53.5
75°	44.8	44.0	43.2	44.0	44.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	19.2	19.2	18.4	19.2	19.2
85°	11.2	11.2	11.2	12.0	11.2
87.5°	5.6	4.8	4.8	5.6	5.6
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°	35.2	35.2	34.4	35.2	35.2
80°	26.4	27.2	26.4	27.2	26.4

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