

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: P838432

Luminaire Tested: HCSQ620D010-HM60525840-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838432
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: HCSQ620D010-HM60525840-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

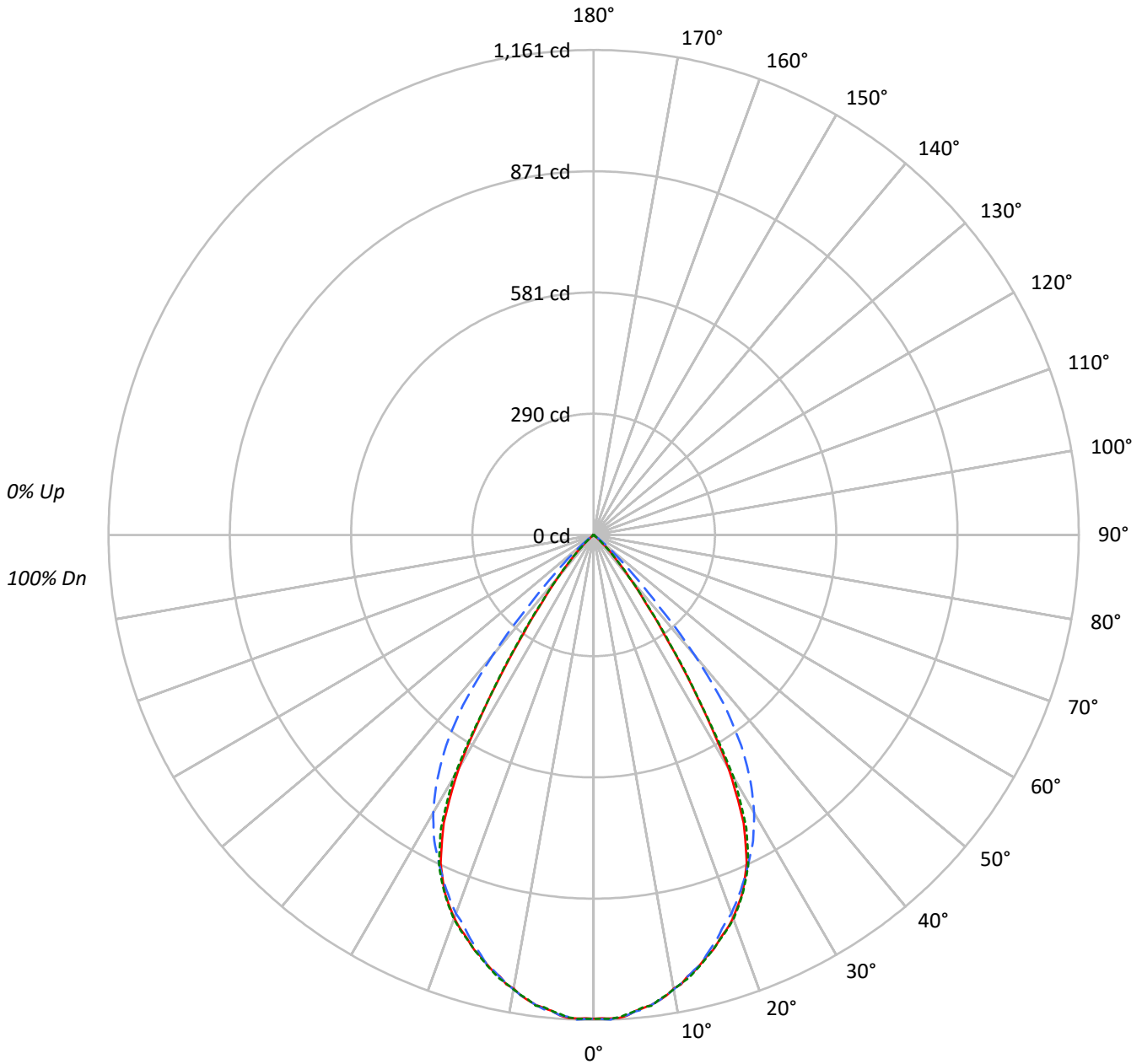
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1151.4 lumens
Efficiency: N/A
Efficacy: 57.6 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): 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										
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	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°	49871	49871	49871
5°	49452	49491	49452
10°	48214	48293	48293
15°	46554	46429	46678
20°	44705	44188	44838
25°	41169	41483	41573
30°	32092	38172	33305
35°	16273	32346	16867
40°	7402	21156	7402
45°	2862	7964	2807
50°	442	2519	442
55°	143	495	143
60°	78	78	78
65°	92	0	92
70°	0	0	113
75°	0	0	150
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 7964 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.2	9.4
10°-20°	293.3	25.5
20°-30°	395.4	34.3
30°-40°	278.0	24.1
40°-50°	71.0	6.2
50°-60°	4.9	0.4
60°-70°	0.6	0.0
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°	796.8	69.2
0°-40°	1074.8	93.4
0°-60°	1150.7	99.9
0°-90°	1151.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1151.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1158	1158	1158	1158	1158	
5°	1144	1146	1145	1146	1144	108
15°	1044	1042	1042	1044	1047	294
25°	867	869	873	876	875	387
35°	310	410	615	421	321	208
45°	47	71	131	72	46	41
55°	2	2	7	2	2	2
65°	1	1	0	1	1	1
75°	0	0	0	0	1	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°	1158.3	1158.3	1158.3	1158.3	1158.3
1°	1157.3	1158.3	1159.2	1159.2	1158.3
2°	1158.3	1155.4	1161.1	1158.3	1159.2
3°	1158.3	1152.6	1155.4	1157.3	1156.4
4°	1153.6	1149.8	1152.6	1151.7	1149.8
5°	1144.2	1146.0	1145.1	1146.0	1144.2
6°	1138.5	1140.4	1142.3	1139.5	1136.6
7°	1133.8	1132.9	1133.8	1135.7	1135.7
8°	1125.3	1127.2	1125.3	1126.3	1123.5
9°	1115.9	1115.9	1115.9	1117.8	1115.0
10°	1102.8	1107.5	1104.6	1106.5	1104.6
11°	1096.2	1094.3	1094.3	1095.2	1094.3
12°	1080.2	1082.1	1081.1	1083.0	1085.8
13°	1071.7	1072.6	1068.9	1073.6	1073.6
14°	1058.5	1057.6	1059.5	1058.5	1060.4
15°	1044.4	1042.5	1041.6	1044.4	1047.2
16°	1034.1	1029.4	1026.5	1030.3	1034.1
17°	1019.0	1014.3	1010.5	1018.1	1019.0
18°	1004.0	1002.1	992.7	1002.1	1006.8
19°	991.7	985.1	976.7	987.0	992.7
20°	975.7	970.1	964.4	970.1	978.6
22.5°	929.6	924.9	920.2	926.8	931.5
25°	866.6	869.4	873.2	876.0	875.1
27.5°	777.2	802.6	826.1	811.1	791.3
30°	645.5	709.5	767.8	719.8	669.9
32.5°	467.6	576.8	698.2	598.4	472.3
35°	309.6	410.2	615.4	420.6	320.9
37.5°	201.4	275.7	513.7	276.6	210.8
40°	131.7	179.7	376.4	183.5	131.7
42.5°	80.9	113.9	228.6	118.6	80.9
45°	47.0	70.6	130.8	71.5	46.1
47.5°	21.6	38.6	74.3	37.6	22.6
50°	6.6	16.9	37.6	16.9	6.6
52.5°	2.8	4.7	17.9	4.7	2.8
55°	1.9	1.9	6.6	1.9	1.9
57.5°	1.9	0.9	1.9	1.9	1.9
60°	0.9	0.9	0.9	0.9	0.9
62.5°	0.9	0.9	0.9	0.9	0.9
65°	0.9	0.9	0.0	0.9	0.9
67.5°	0.9	0.0	0.0	0.0	0.9
70°	0.0	0.0	0.0	0.0	0.9
72.5°	0.0	0.0	0.0	0.0	0.9
75°	0.0	0.0	0.0	0.0	0.9



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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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Scaled Data Report



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