

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: P838461

Luminaire Tested: HCSQ625D010-HM60525830-61SQLWW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838461
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ625D010-HM60525830-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

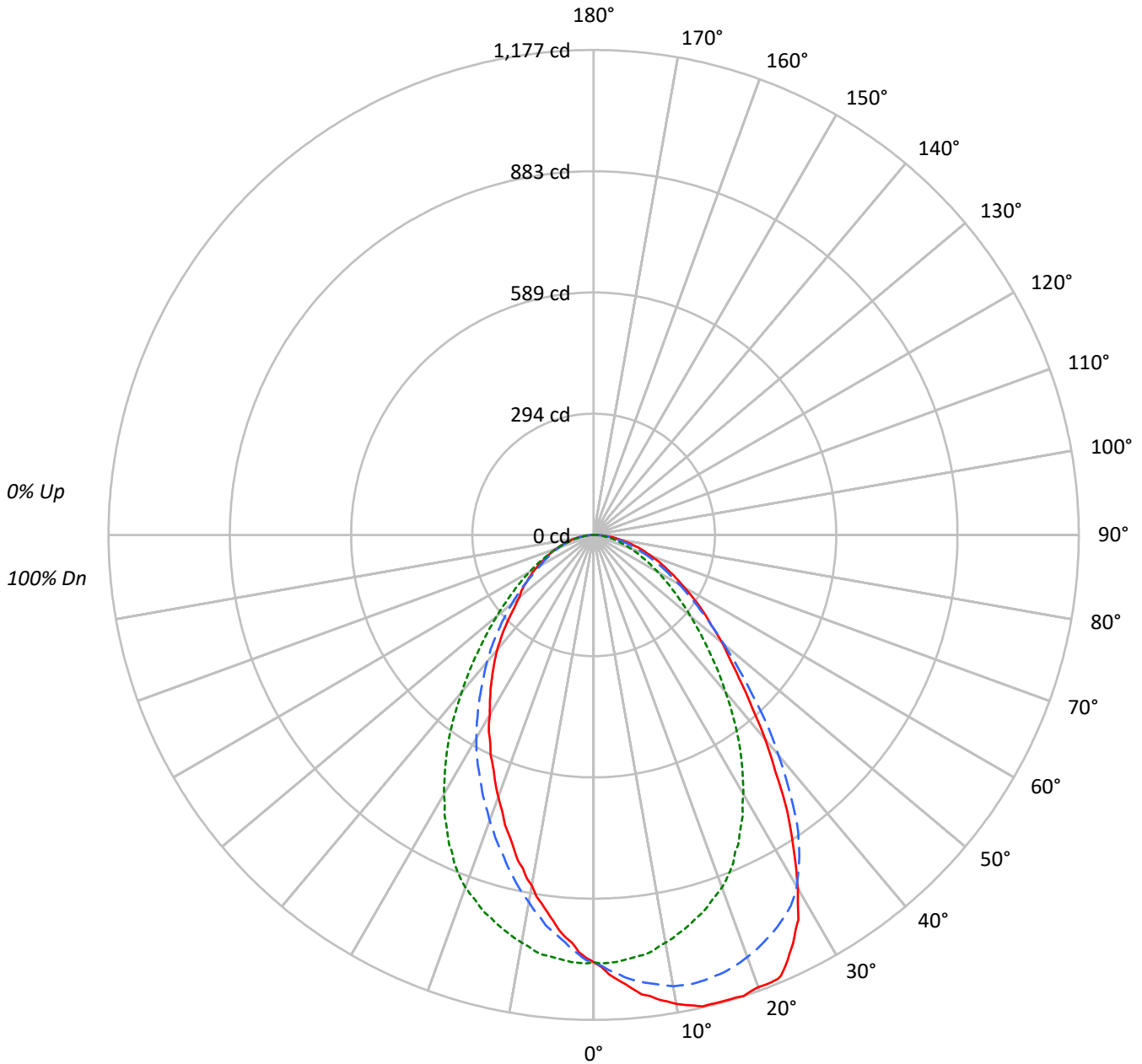
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1960.8 lumens
Efficiency: N/A
Efficacy: 70.8 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.08 / 1.17
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 27.7
Input Voltage (V): NR
Input Current (Ain): 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

TEST NUMBER: P838461
CATALOG NUMBER: HCSQ625D010-HM60525830-61SQLWW

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20				
RC	80					70					50					30				
RW	70	50	30	10	70	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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87		
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75		
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66		
4	87	76	69	63	85	75	68	62	73	66	62	71	65	61	68	64	60	58		
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51		
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46		
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42		
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38		
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34		
10	58	46	39	34	57	45	38	34	44	38	34	44	38	33	43	37	33	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	100450	100450	100450	100450	100450
5°	107631	105424	100299	95116	93599
10°	113686	109427	98832	89005	84962
15°	117804	111455	96532	82501	77276
20°	120402	112392	93845	76000	69701
25°	120091	112379	88644	69660	63129
30°	110777	110218	81223	63705	56379
35°	96893	101949	72732	56979	51078
40°	81846	88239	62902	50964	46045
45°	69200	73920	53842	44718	40306
50°	61400	61988	46178	38989	35477
55°	54942	53059	39944	33560	33374
60°	49038	46239	34836	29043	31407
65°	45043	41100	30281	26980	28768
70°	41495	36794	26738	25152	26738
75°	39077	32826	23281	22870	24517
80°	35928	29428	20419	21032	22315
85°	35791	26510	17229	17229	19785

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 74529 cd/sqm



TEST NUMBER: P838461

CATALOG NUMBER: HCSQ625D010-HM60525830-61SQLWW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.8	5.0
10°-20°	272.6	13.9
20°-30°	388.8	19.8
30°-40°	400.7	20.4
40°-50°	322.6	16.5
50°-60°	228.1	11.6
60°-70°	147.8	7.5
70°-80°	79.4	4.1
80°-90°	22.9	1.2
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°	759.2	38.7
0°-40°	1159.9	59.2
0°-60°	1710.6	87.2
0°-90°	1960.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1960.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1037	1037	1037	1037	1037	
5°	1107	1084	1031	978	962	107
15°	1175	1111	962	823	770	332
25°	1124	1051	829	652	591	512
35°	819	862	615	482	432	509
45°	505	540	393	326	294	395
55°	325	314	236	199	198	291
65°	196	179	132	118	126	196
75°	104	88	62	61	66	111
85°	32	24	16	16	18	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	1036.9	1036.9	1036.9	1036.9	1036.9	1036.9	1036.9	1036.9	1036.9	1036.9	1036.9
1°	1048.0	1052.4	1049.1	1049.1	1045.8	1044.7	1046.9	1043.6	1042.5	1040.2	1035.8
2°	1066.9	1063.5	1062.4	1063.5	1056.9	1056.9	1053.6	1046.9	1043.6	1039.1	1026.9
3°	1080.2	1078.0	1075.8	1074.7	1068.0	1062.4	1058.0	1050.2	1043.6	1038.0	1020.3
4°	1092.4	1092.4	1090.2	1085.8	1079.1	1072.4	1063.5	1054.7	1044.7	1034.7	1011.4
5°	1106.8	1108.0	1098.0	1096.9	1089.1	1079.1	1069.1	1056.9	1044.7	1031.4	1005.8
6°	1121.3	1115.7	1113.5	1105.7	1094.6	1085.8	1073.5	1060.2	1043.6	1028.0	993.6
7°	1127.9	1126.8	1121.3	1113.5	1103.5	1089.1	1076.9	1059.1	1041.3	1025.8	984.7
8°	1139.0	1139.0	1132.4	1122.4	1108.0	1094.6	1079.1	1058.0	1040.2	1020.3	972.5
9°	1146.8	1146.8	1137.9	1129.1	1115.7	1098.0	1080.2	1056.9	1034.7	1011.4	961.4
10°	1155.7	1153.5	1146.8	1133.5	1122.4	1102.4	1080.2	1055.8	1031.4	1004.7	950.3
11°	1162.4	1159.0	1151.3	1141.3	1123.5	1103.5	1080.2	1055.8	1026.9	998.0	939.2
12°	1167.9	1165.7	1155.7	1143.5	1125.7	1105.7	1079.1	1051.3	1019.1	989.2	924.8
13°	1174.6	1167.9	1157.9	1146.8	1126.8	1103.5	1074.7	1044.7	1013.6	981.4	912.6
14°	1173.5	1172.3	1163.5	1147.9	1125.7	1101.3	1073.5	1038.0	1005.8	972.5	898.1
15°	1174.6	1173.5	1163.5	1149.0	1124.6	1098.0	1070.2	1033.6	998.0	962.5	883.7
16°	1174.6	1174.6	1161.2	1146.8	1123.5	1094.6	1063.5	1029.1	990.3	954.8	871.5
17°	1174.6	1174.6	1163.5	1143.5	1120.2	1092.4	1056.9	1020.3	981.4	943.7	853.7
18°	1176.8	1173.5	1159.0	1142.4	1115.7	1086.9	1052.4	1013.6	973.6	931.4	841.5
19°	1171.2	1169.0	1156.8	1135.7	1112.4	1080.2	1045.8	1005.8	965.9	921.4	827.1
20°	1167.9	1171.2	1154.6	1132.4	1105.7	1074.7	1039.1	998.0	954.8	910.3	812.6
21°	1169.0	1167.9	1150.1	1126.8	1101.3	1066.9	1031.4	989.2	942.5	897.0	799.3
22.5°	1166.8	1163.5	1144.6	1119.1	1088.0	1056.9	1018.0	974.7	924.8	873.7	773.8
23°	1162.4	1159.0	1144.6	1116.8	1083.5	1052.4	1011.4	965.9	918.1	865.9	767.1
24°	1144.6	1143.5	1136.8	1109.1	1078.0	1043.6	1003.6	951.4	898.1	843.7	750.5
25°	1123.5	1125.7	1122.4	1104.6	1069.1	1033.6	991.4	933.7	879.3	829.3	730.5
26°	1103.5	1103.5	1101.3	1094.6	1060.2	1022.5	973.6	912.6	860.4	808.2	709.4
27°	1078.0	1082.4	1078.0	1074.7	1051.3	1010.3	954.8	898.1	839.3	788.2	691.6
28°	1058.0	1058.0	1055.8	1050.2	1042.5	995.8	934.8	877.0	819.3	770.5	671.7
29°	1022.5	1029.1	1030.2	1031.4	1030.2	977.0	915.9	853.7	798.2	744.9	652.8
30°	990.3	996.9	1001.4	1009.2	1010.3	960.3	893.7	834.9	778.2	726.1	636.1
32.5°	902.6	914.8	927.0	940.3	947.0	910.3	839.3	774.9	717.2	670.5	585.1
35°	819.3	822.6	836.0	867.0	873.7	850.4	774.9	713.8	659.4	615.0	537.3
37.5°	724.9	731.6	750.5	786.0	788.2	769.4	717.2	646.1	595.1	556.2	488.5
40°	647.2	650.6	663.9	693.9	703.9	691.6	646.1	581.7	535.1	497.4	441.9
42.5°	569.5	574.0	590.6	613.9	628.4	613.9	574.0	518.5	472.9	445.2	397.4
45°	505.1	510.7	526.2	539.5	544.0	535.1	499.6	454.1	421.9	393.0	356.4
47.5°	449.6	455.2	466.3	471.8	477.4	468.5	440.7	403.0	370.8	347.5	314.2
50°	407.4	406.3	414.1	416.3	416.3	406.3	383.0	351.9	325.3	306.4	278.7
52.5°	359.7	361.9	367.5	365.2	364.1	355.3	335.3	308.6	286.4	269.8	244.2
55°	325.3	322.0	325.3	323.1	318.6	309.7	292.0	269.8	250.9	236.5	213.2
57.5°	287.5	287.5	288.6	284.2	278.7	268.7	253.1	235.4	218.7	206.5	187.6
60°	253.1	255.3	254.2	249.8	244.2	233.1	220.9	203.2	188.7	179.8	162.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	172.1	172.1	168.7	165.4	157.6	147.7	138.8	127.7	119.9	112.1	101.0
70°	146.5	148.8	144.3	138.8	133.2	126.6	116.6	107.7	99.9	94.4	85.5
72.5°	126.6	125.5	122.1	116.6	112.1	104.4	95.5	88.8	82.2	77.7	71.1
75°	104.4	104.4	101.0	96.6	91.0	84.4	77.7	72.2	66.6	62.2	58.8
77.5°	83.3	84.4	81.0	77.7	73.3	66.6	61.1	56.6	52.2	48.8	46.6
80°	64.4	65.5	62.2	59.9	54.4	51.1	46.6	42.2	38.9	36.6	35.5
82.5°	48.8	47.7	45.5	44.4	40.0	36.6	32.2	30.0	27.8	25.5	25.5
85°	32.2	31.1	30.0	28.9	25.5	22.2	21.1	18.9	16.7	15.5	15.5
87.5°	16.7	16.7	15.5	14.4	13.3	11.1	10.0	7.8	6.7	6.7	6.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	1036.9	1036.9	1036.9
1°	1032.5	1028.0	1026.9
2°	1019.1	1012.5	1013.6
3°	1006.9	999.2	991.4
4°	991.4	979.2	979.2
5°	978.1	965.9	962.5
6°	965.9	945.9	941.4
7°	954.8	930.3	922.6
8°	935.9	911.5	903.7
9°	922.6	895.9	888.1
10°	904.8	878.2	863.7
11°	890.4	860.4	849.3
12°	874.8	838.2	827.1
13°	857.1	819.3	812.6
14°	840.4	803.8	791.6
15°	822.6	784.9	770.5
16°	803.8	766.0	752.7
17°	788.2	746.0	736.0
18°	772.7	728.3	712.7
19°	753.8	711.6	693.9
20°	737.2	690.5	676.1
21°	719.4	675.0	659.4
22.5°	695.0	645.0	630.6
23°	687.2	636.1	620.6
24°	669.4	618.4	605.0
25°	651.7	605.0	590.6
26°	636.1	585.1	571.7
27°	620.6	569.5	555.1
28°	603.9	552.9	541.8
29°	587.3	535.1	524.0
30°	569.5	522.9	504.0
32.5°	525.1	482.9	467.4
35°	481.8	445.2	431.9
37.5°	439.6	409.7	397.4
40°	403.0	376.4	364.1
42.5°	365.2	340.8	328.6
45°	326.4	306.4	294.2
47.5°	290.9	274.2	260.9
50°	258.7	242.0	235.4
52.5°	227.6	216.5	219.8
55°	198.7	198.7	197.6
57.5°	171.0	178.7	179.8
60°	149.9	159.9	162.1



TEST NUMBER: P838461

CATALOG NUMBER: HCSQ625D010-HM60525830-61SQLWW

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	103.2	108.8	111.0
70°	88.8	93.3	94.4
72.5°	75.5	78.8	81.0
75°	61.1	65.5	65.5
77.5°	50.0	52.2	53.3
80°	37.7	38.9	40.0
82.5°	26.6	27.8	28.9
85°	15.5	16.7	17.8
87.5°	6.7	6.7	6.7
90°	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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Scaled Data Report





62.5°	224.3	226.5	223.1	217.6	212.0	202.1	191.0	175.4	164.3	155.4	139.9
65°	196.5	197.6	195.4	189.8	184.3	174.3	163.2	149.9	141.0	132.1	118.8

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Scaled Data Report





62.5°	134.3	142.1	143.2
65°	117.7	124.3	125.5

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)