

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: P838456

Luminaire Tested: HCSQ625D010-HM60525827-61SQLWW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838456
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-HM60525827-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

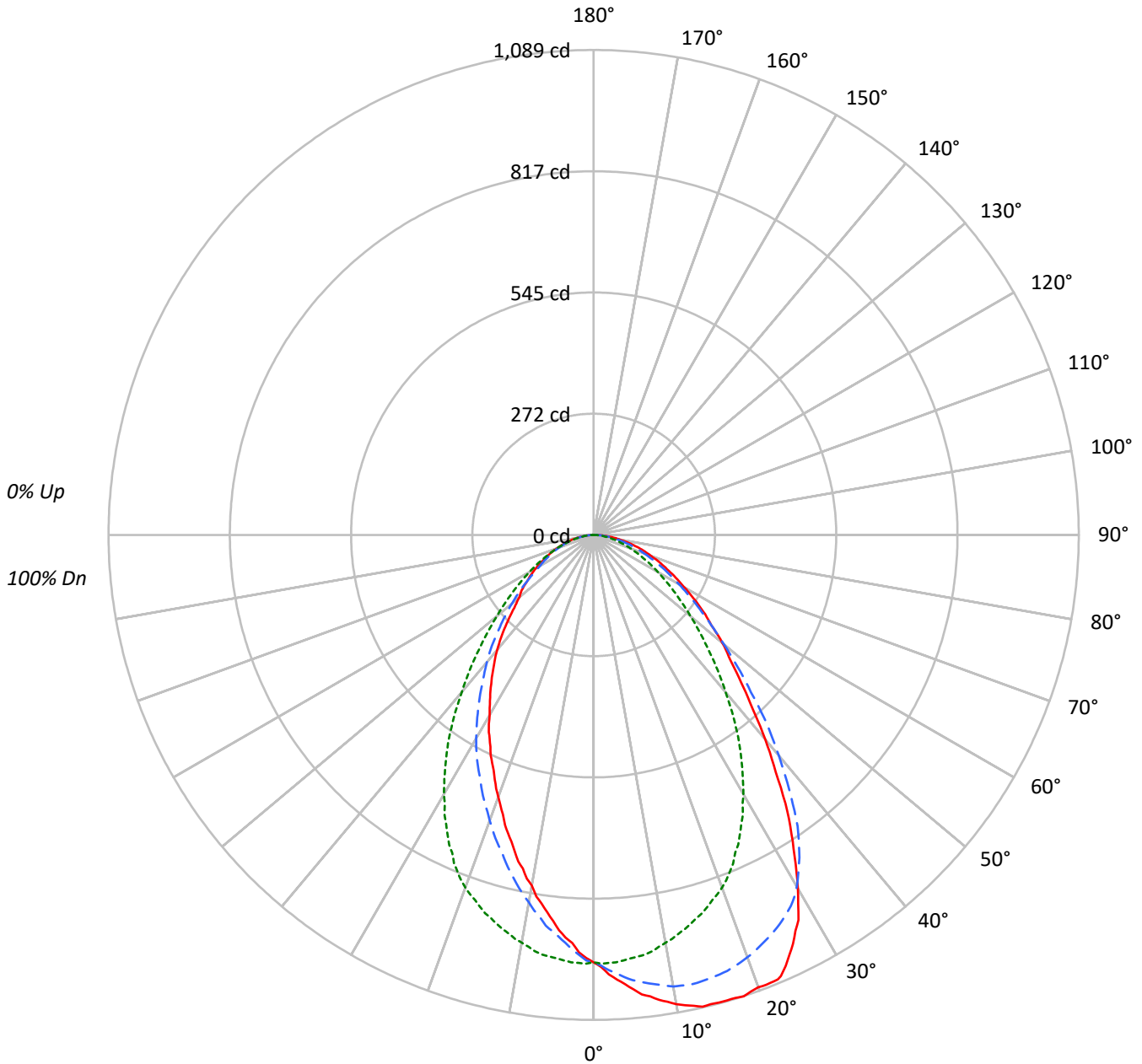
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1815.1 lumens
Efficiency: N/A
Efficacy: 65.5 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 (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				
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°	92981	92981	92981	92981	92981
5°	99638	97586	92840	88046	86646
10°	105236	101296	91484	82395	78647
15°	109048	103171	89361	76373	71529
20°	111453	104041	86876	70350	64526
25°	111166	104026	82060	64476	58437
30°	102544	102024	75183	58974	52195
35°	89691	94374	67327	52745	47282
40°	75763	81675	58223	47170	42630
45°	64062	68426	49842	41388	37306
50°	56848	57383	42742	36080	32840
55°	50855	49115	36972	31077	30891
60°	45396	42809	32260	26873	29063
65°	41696	38040	28034	24963	26613
70°	38436	34060	24756	23283	24756
75°	36157	30393	21522	21148	22682
80°	33250	27253	18912	19470	20642
85°	33123	24565	16006	16006	18229

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 68994 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.5	5.0
10°-20°	252.3	13.9
20°-30°	359.9	19.8
30°-40°	370.9	20.4
40°-50°	298.6	16.5
50°-60°	211.2	11.6
60°-70°	136.8	7.5
70°-80°	73.5	4.0
80°-90°	21.2	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°	702.8	38.7
0°-40°	1073.7	59.2
0°-60°	1583.5	87.2
0°-90°	1815.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1815.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	960	960	960	960	960	
5°	1025	1004	955	905	891	99
15°	1087	1029	891	762	713	307
25°	1040	973	768	603	547	474
35°	758	798	569	446	400	471
45°	468	499	364	302	272	365
55°	301	291	219	184	183	269
65°	182	166	122	109	116	181
75°	97	81	58	56	61	102
85°	30	22	14	14	16	33
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°	959.8	959.8	959.8	959.8	959.8	959.8	959.8	959.8	959.8	959.8	959.8
1°	970.1	974.2	971.1	971.1	968.1	967.0	969.1	966.0	965.0	962.9	958.8
2°	987.6	984.5	983.5	984.5	978.3	978.3	975.3	969.1	966.0	961.9	950.6
3°	999.9	997.9	995.8	994.8	988.6	983.5	979.4	972.2	966.0	960.9	944.4
4°	1011.2	1011.2	1009.2	1005.1	998.9	992.7	984.5	976.3	967.0	957.8	936.2
5°	1024.6	1025.6	1016.4	1015.3	1008.1	998.9	989.6	978.3	967.0	954.7	931.1
6°	1037.9	1032.8	1030.8	1023.6	1013.3	1005.1	993.8	981.4	966.0	951.6	919.8
7°	1044.1	1043.1	1037.9	1030.8	1021.5	1008.1	996.8	980.4	964.0	949.6	911.5
8°	1054.4	1054.4	1048.2	1039.0	1025.6	1013.3	998.9	979.4	962.9	944.4	900.2
9°	1061.6	1061.6	1053.4	1045.1	1032.8	1016.4	999.9	978.3	957.8	936.2	890.0
10°	1069.8	1067.7	1061.6	1049.3	1039.0	1020.5	999.9	977.3	954.7	930.0	879.7
11°	1076.0	1072.9	1065.7	1056.4	1040.0	1021.5	999.9	977.3	950.6	923.9	869.4
12°	1081.1	1079.1	1069.8	1058.5	1042.1	1023.6	998.9	973.2	943.4	915.7	856.0
13°	1087.3	1081.1	1071.9	1061.6	1043.1	1021.5	994.8	967.0	938.3	908.5	844.7
14°	1086.2	1085.2	1077.0	1062.6	1042.1	1019.4	993.8	960.9	931.1	900.2	831.4
15°	1087.3	1086.2	1077.0	1063.6	1041.0	1016.4	990.7	956.8	923.9	891.0	818.0
16°	1087.3	1087.3	1074.9	1061.6	1040.0	1013.3	984.5	952.6	916.7	883.8	806.7
17°	1087.3	1087.3	1077.0	1058.5	1036.9	1011.2	978.3	944.4	908.5	873.5	790.3
18°	1089.3	1086.2	1072.9	1057.5	1032.8	1006.1	974.2	938.3	901.3	862.2	779.0
19°	1084.2	1082.1	1070.8	1051.3	1029.7	999.9	968.1	931.1	894.1	853.0	765.6
20°	1081.1	1084.2	1068.8	1048.2	1023.6	994.8	961.9	923.9	883.8	842.7	752.3
21°	1082.1	1081.1	1064.7	1043.1	1019.4	987.6	954.7	915.7	872.5	830.4	739.9
22.5°	1080.1	1077.0	1059.5	1035.9	1007.1	978.3	942.4	902.3	856.0	808.8	716.3
23°	1076.0	1072.9	1059.5	1033.8	1003.0	974.2	936.2	894.1	849.9	801.6	710.1
24°	1059.5	1058.5	1052.3	1026.6	997.9	966.0	929.0	880.7	831.4	781.0	694.7
25°	1040.0	1042.1	1039.0	1022.5	989.6	956.8	917.7	864.3	813.9	767.7	676.2
26°	1021.5	1021.5	1019.4	1013.3	981.4	946.5	901.3	844.7	796.4	748.1	656.7
27°	997.9	1002.0	997.9	994.8	973.2	935.2	883.8	831.4	776.9	729.6	640.2
28°	979.4	979.4	977.3	972.2	965.0	921.8	865.3	811.9	758.4	713.2	621.7
29°	946.5	952.6	953.7	954.7	953.7	904.3	847.8	790.3	738.9	689.6	604.3
30°	916.7	922.8	927.0	934.2	935.2	888.9	827.3	772.8	720.4	672.1	588.9
32.5°	835.5	846.8	858.1	870.4	876.6	842.7	776.9	717.3	663.9	620.7	541.6
35°	758.4	761.5	773.8	802.6	808.8	787.2	717.3	660.8	610.4	569.3	497.4
37.5°	671.1	677.2	694.7	727.6	729.6	712.2	663.9	598.1	550.8	514.9	452.2
40°	599.1	602.2	614.5	642.3	651.5	640.2	598.1	538.5	495.3	460.4	409.0
42.5°	527.2	531.3	546.7	568.3	581.7	568.3	531.3	479.9	437.8	412.1	367.9
45°	467.6	472.7	487.1	499.4	503.6	495.3	462.5	420.3	390.5	363.8	329.9
47.5°	416.2	421.3	431.6	436.8	441.9	433.7	408.0	373.0	343.2	321.7	290.8
50°	377.2	376.1	383.3	385.4	385.4	376.1	354.5	325.8	301.1	283.6	257.9
52.5°	333.0	335.0	340.2	338.1	337.1	328.9	310.4	285.7	265.1	249.7	226.1
55°	301.1	298.0	301.1	299.1	294.9	286.7	270.3	249.7	232.3	218.9	197.3
57.5°	266.2	266.2	267.2	263.1	257.9	248.7	234.3	217.9	202.5	191.1	173.7
60°	234.3	236.4	235.3	231.2	226.1	215.8	204.5	188.1	174.7	166.5	150.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	159.3	159.3	156.2	153.1	145.9	136.7	128.5	118.2	111.0	103.8	93.5
70°	135.7	137.7	133.6	128.5	123.3	117.2	107.9	99.7	92.5	87.4	79.1
72.5°	117.2	116.1	113.0	107.9	103.8	96.6	88.4	82.2	76.0	71.9	65.8
75°	96.6	96.6	93.5	89.4	84.3	78.1	71.9	66.8	61.7	57.5	54.5
77.5°	77.1	78.1	75.0	71.9	67.8	61.7	56.5	52.4	48.3	45.2	43.2
80°	59.6	60.6	57.5	55.5	50.4	47.3	43.2	39.1	36.0	33.9	32.9
82.5°	45.2	44.2	42.1	41.1	37.0	33.9	29.8	27.7	25.7	23.6	23.6
85°	29.8	28.8	27.7	26.7	23.6	20.6	19.5	17.5	15.4	14.4	14.4
87.5°	15.4	15.4	14.4	13.4	12.3	10.3	9.2	7.2	6.2	6.2	6.2
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°	959.8	959.8	959.8
1°	955.7	951.6	950.6
2°	943.4	937.2	938.3
3°	932.1	924.9	917.7
4°	917.7	906.4	906.4
5°	905.4	894.1	891.0
6°	894.1	875.6	871.5
7°	883.8	861.2	854.0
8°	866.3	843.7	836.5
9°	854.0	829.3	822.1
10°	837.6	812.9	799.5
11°	824.2	796.4	786.2
12°	809.8	775.9	765.6
13°	793.4	758.4	752.3
14°	777.9	744.0	732.7
15°	761.5	726.6	713.2
16°	744.0	709.1	696.8
17°	729.6	690.6	681.3
18°	715.3	674.2	659.8
19°	697.8	658.7	642.3
20°	682.4	639.2	625.9
21°	665.9	624.8	610.4
22.5°	643.3	597.1	583.7
23°	636.1	588.9	574.5
24°	619.7	572.4	560.1
25°	603.2	560.1	546.7
26°	588.9	541.6	529.2
27°	574.5	527.2	513.8
28°	559.1	511.8	501.5
29°	543.6	495.3	485.1
30°	527.2	484.0	466.6
32.5°	486.1	447.0	432.6
35°	446.0	412.1	399.8
37.5°	407.0	379.2	367.9
40°	373.0	348.4	337.1
42.5°	338.1	315.5	304.2
45°	302.1	283.6	272.3
47.5°	269.2	253.8	241.5
50°	239.4	224.0	217.9
52.5°	210.7	200.4	203.5
55°	184.0	184.0	182.9
57.5°	158.3	165.5	166.5
60°	138.7	148.0	150.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	95.6	100.7	102.8
70°	82.2	86.3	87.4
72.5°	69.9	73.0	75.0
75°	56.5	60.6	60.6
77.5°	46.2	48.3	49.3
80°	34.9	36.0	37.0
82.5°	24.7	25.7	26.7
85°	14.4	15.4	16.4
87.5°	6.2	6.2	6.2
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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62.5°	207.6	209.6	206.6	201.4	196.3	187.0	176.8	162.4	152.1	143.9	129.5
65°	181.9	182.9	180.9	175.7	170.6	161.3	151.1	138.7	130.5	122.3	110.0

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62.5°	124.3	131.5	132.6
65°	108.9	115.1	116.1

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Scaled Data Report



(END OF REPORT)