

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: P838471

Luminaire Tested: HCSQ625D010-HM60525840-61SQLWW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838471
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-HM60525840-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

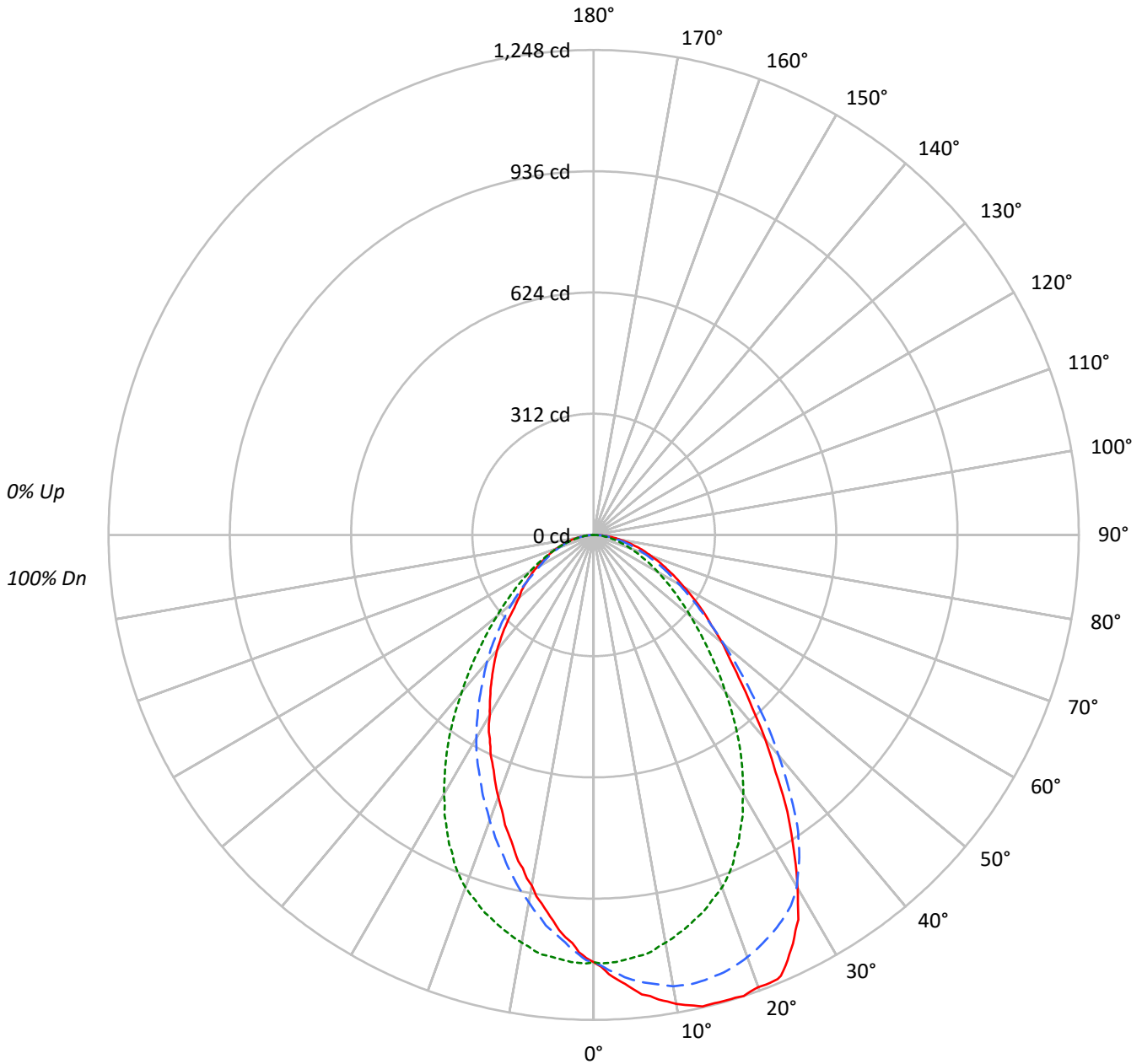
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2079.1 lumens
Efficiency: N/A
Efficacy: 75.1 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

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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	69	63	85	75	68	62	73	66	62	71	65	61	68	64	60	58					58			
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51					51			
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46					46			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42					42			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38					38			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34					34			
10	58	46	39	34	57	45	38	34	44	38	34	44	38	33	43	37	33	32					32			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	106515	106515	106515	106515	106515
5°	114127	111784	106348	100853	99249
10°	120542	116027	104793	94376	90087
15°	124905	118180	102359	87485	81939
20°	127670	119175	99515	80577	73907
25°	127338	119156	93989	73861	66945
30°	117455	116862	86123	67554	59779
35°	102735	108098	77119	60421	54153
40°	86791	93563	66696	54037	48827
45°	73379	78379	57089	47417	42731
50°	65107	65725	48966	41340	37618
55°	58253	56260	42343	35587	35384
60°	52003	49038	36948	30787	33306
65°	47771	43576	32115	28608	30487
70°	44016	39017	28353	26682	28353
75°	41435	34810	24666	24217	26014
80°	38103	31186	21646	22315	23654
85°	37903	28121	18340	18340	20897

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 79023 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.7	5.0
10°-20°	289.0	13.9
20°-30°	412.3	19.8
30°-40°	424.9	20.4
40°-50°	342.0	16.5
50°-60°	241.9	11.6
60°-70°	156.8	7.5
70°-80°	84.2	4.0
80°-90°	24.3	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°	805.0	38.7
0°-40°	1229.9	59.2
0°-60°	1813.8	87.2
0°-90°	2079.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2079.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1100	1100	1100	1100	1100	
5°	1174	1150	1094	1037	1021	114
15°	1245	1178	1021	872	817	352
25°	1191	1115	879	691	626	542
35°	869	914	652	511	458	539
45°	536	572	417	346	312	419
55°	345	333	251	211	210	308
65°	208	190	140	125	133	208
75°	111	93	66	65	70	117
85°	34	25	16	16	19	37
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°	1099.5	1099.5	1099.5	1099.5	1099.5	1099.5	1099.5	1099.5	1099.5	1099.5	1099.5
1°	1111.2	1116.0	1112.4	1112.4	1108.9	1107.7	1110.1	1106.5	1105.4	1103.0	1098.3
2°	1131.3	1127.7	1126.5	1127.7	1120.7	1120.7	1117.1	1110.1	1106.5	1101.8	1088.9
3°	1145.4	1143.0	1140.7	1139.5	1132.4	1126.5	1121.8	1113.6	1106.5	1100.6	1081.8
4°	1158.3	1158.3	1156.0	1151.3	1144.2	1137.1	1127.7	1118.3	1107.7	1097.1	1072.4
5°	1173.6	1174.8	1164.2	1163.0	1154.8	1144.2	1133.6	1120.7	1107.7	1093.6	1066.5
6°	1188.9	1183.0	1180.7	1172.5	1160.7	1151.3	1138.3	1124.2	1106.5	1090.1	1053.6
7°	1196.0	1194.8	1188.9	1180.7	1170.1	1154.8	1141.8	1123.0	1104.2	1087.7	1044.1
8°	1207.8	1207.8	1200.7	1190.1	1174.8	1160.7	1144.2	1121.8	1103.0	1081.8	1031.2
9°	1216.0	1216.0	1206.6	1197.2	1183.0	1164.2	1145.4	1120.7	1097.1	1072.4	1019.4
10°	1225.4	1223.1	1216.0	1201.9	1190.1	1168.9	1145.4	1119.5	1093.6	1065.3	1007.7
11°	1232.5	1229.0	1220.7	1210.1	1191.3	1170.1	1145.4	1119.5	1088.9	1058.3	995.9
12°	1238.4	1236.0	1225.4	1212.5	1193.6	1172.5	1144.2	1114.8	1080.6	1048.9	980.6
13°	1245.4	1238.4	1227.8	1216.0	1194.8	1170.1	1139.5	1107.7	1074.8	1040.6	967.6
14°	1244.3	1243.1	1233.7	1217.2	1193.6	1167.7	1138.3	1100.6	1066.5	1031.2	952.3
15°	1245.4	1244.3	1233.7	1218.4	1192.5	1164.2	1134.8	1095.9	1058.3	1020.6	937.0
16°	1245.4	1245.4	1231.3	1216.0	1191.3	1160.7	1127.7	1091.2	1050.0	1012.4	924.1
17°	1245.4	1245.4	1233.7	1212.5	1187.8	1158.3	1120.7	1081.8	1040.6	1000.6	905.2
18°	1247.8	1244.3	1229.0	1211.3	1183.0	1152.4	1116.0	1074.8	1032.4	987.6	892.3
19°	1241.9	1239.6	1226.6	1204.2	1179.5	1145.4	1108.9	1066.5	1024.1	977.0	877.0
20°	1238.4	1241.9	1224.3	1200.7	1172.5	1139.5	1101.8	1058.3	1012.4	965.3	861.7
21°	1239.6	1238.4	1219.5	1194.8	1167.7	1131.3	1093.6	1048.9	999.4	951.1	847.6
22.5°	1237.2	1233.7	1213.7	1186.6	1153.6	1120.7	1079.5	1033.5	980.6	926.4	820.5
23°	1232.5	1229.0	1213.7	1184.2	1148.9	1116.0	1072.4	1024.1	973.5	918.2	813.4
24°	1213.7	1212.5	1205.4	1176.0	1143.0	1106.5	1064.2	1008.8	952.3	894.6	795.8
25°	1191.3	1193.6	1190.1	1171.3	1133.6	1095.9	1051.2	990.0	932.3	879.3	774.6
26°	1170.1	1170.1	1167.7	1160.7	1124.2	1084.2	1032.4	967.6	912.3	857.0	752.2
27°	1143.0	1147.7	1143.0	1139.5	1114.8	1071.2	1012.4	952.3	889.9	835.8	733.4
28°	1121.8	1121.8	1119.5	1113.6	1105.4	1055.9	991.2	930.0	868.7	817.0	712.2
29°	1084.2	1091.2	1092.4	1093.6	1092.4	1035.9	971.2	905.2	846.4	789.9	692.2
30°	1050.0	1057.1	1061.8	1070.0	1071.2	1018.2	947.6	885.2	825.2	769.9	674.5
32.5°	957.0	970.0	982.9	997.1	1004.1	965.3	889.9	821.7	760.4	711.0	620.4
35°	868.7	872.3	886.4	919.4	926.4	901.7	821.7	756.9	699.2	652.1	569.7
37.5°	768.7	775.8	795.8	833.4	835.8	815.8	760.4	685.1	631.0	589.8	518.0
40°	686.3	689.8	703.9	735.7	746.3	733.4	685.1	616.8	567.4	527.4	468.5
42.5°	603.9	608.6	626.3	651.0	666.3	651.0	608.6	549.7	501.5	472.0	421.4
45°	535.6	541.5	558.0	572.1	576.8	567.4	529.7	481.5	447.3	416.7	377.9
47.5°	476.8	482.6	494.4	500.3	506.2	496.8	467.3	427.3	393.2	368.5	333.1
50°	432.0	430.8	439.1	441.4	441.4	430.8	406.1	373.2	344.9	324.9	295.5
52.5°	381.4	383.8	389.6	387.3	386.1	376.7	355.5	327.3	303.7	286.1	259.0
55°	344.9	341.4	344.9	342.6	337.8	328.4	309.6	286.1	266.0	250.7	226.0
57.5°	304.9	304.9	306.1	301.4	295.5	284.9	268.4	249.6	231.9	219.0	198.9
60°	268.4	270.7	269.6	264.9	259.0	247.2	234.3	215.4	200.1	190.7	171.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	182.5	182.5	178.9	175.4	167.2	156.6	147.1	135.4	127.1	118.9	107.1
70°	155.4	157.7	153.0	147.1	141.3	134.2	123.6	114.2	105.9	100.1	90.6
72.5°	134.2	133.0	129.5	123.6	118.9	110.7	101.2	94.2	87.1	82.4	75.3
75°	110.7	110.7	107.1	102.4	96.5	89.5	82.4	76.5	70.6	65.9	62.4
77.5°	88.3	89.5	85.9	82.4	77.7	70.6	64.7	60.0	55.3	51.8	49.4
80°	68.3	69.5	65.9	63.6	57.7	54.1	49.4	44.7	41.2	38.8	37.7
82.5°	51.8	50.6	48.3	47.1	42.4	38.8	34.1	31.8	29.4	27.1	27.1
85°	34.1	33.0	31.8	30.6	27.1	23.5	22.4	20.0	17.7	16.5	16.5
87.5°	17.7	17.7	16.5	15.3	14.1	11.8	10.6	8.2	7.1	7.1	7.1
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°	1099.5	1099.5	1099.5
1°	1094.8	1090.1	1088.9
2°	1080.6	1073.6	1074.8
3°	1067.7	1059.4	1051.2
4°	1051.2	1038.3	1038.3
5°	1037.1	1024.1	1020.6
6°	1024.1	1002.9	998.2
7°	1012.4	986.5	978.2
8°	992.3	966.5	958.2
9°	978.2	950.0	941.7
10°	959.4	931.1	915.8
11°	944.1	912.3	900.5
12°	927.6	888.8	877.0
13°	908.8	868.7	861.7
14°	891.1	852.3	839.3
15°	872.3	832.3	817.0
16°	852.3	812.2	798.1
17°	835.8	791.1	780.5
18°	819.3	772.2	755.7
19°	799.3	754.6	735.7
20°	781.6	732.2	716.9
21°	762.8	715.7	699.2
22.5°	736.9	683.9	668.6
23°	728.7	674.5	658.0
24°	709.8	655.7	641.6
25°	691.0	641.6	626.3
26°	674.5	620.4	606.2
27°	658.0	603.9	588.6
28°	640.4	586.2	574.5
29°	622.7	567.4	555.6
30°	603.9	554.4	534.4
32.5°	556.8	512.1	495.6
35°	510.9	472.0	457.9
37.5°	466.2	434.4	421.4
40°	427.3	399.1	386.1
42.5°	387.3	361.4	348.4
45°	346.1	324.9	311.9
47.5°	308.4	290.8	276.6
50°	274.3	256.6	249.6
52.5°	241.3	229.5	233.1
55°	210.7	210.7	209.5
57.5°	181.3	189.5	190.7
60°	158.9	169.5	171.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	109.5	115.4	117.7
70°	94.2	98.9	100.1
72.5°	80.0	83.6	85.9
75°	64.7	69.5	69.5
77.5°	53.0	55.3	56.5
80°	40.0	41.2	42.4
82.5°	28.3	29.4	30.6
85°	16.5	17.7	18.8
87.5°	7.1	7.1	7.1
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°	237.8	240.1	236.6	230.7	224.8	214.2	202.5	186.0	174.2	164.8	148.3
65°	208.4	209.5	207.2	201.3	195.4	184.8	173.0	158.9	149.5	140.1	126.0

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62.5°	142.4	150.7	151.9
65°	124.8	131.8	133.0

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Scaled Data Report



(END OF REPORT)