

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P584158

Luminaire Tested: **HC825D010-HM82555840-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584158
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC825D010-HM82555840-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2562.2 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.16
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

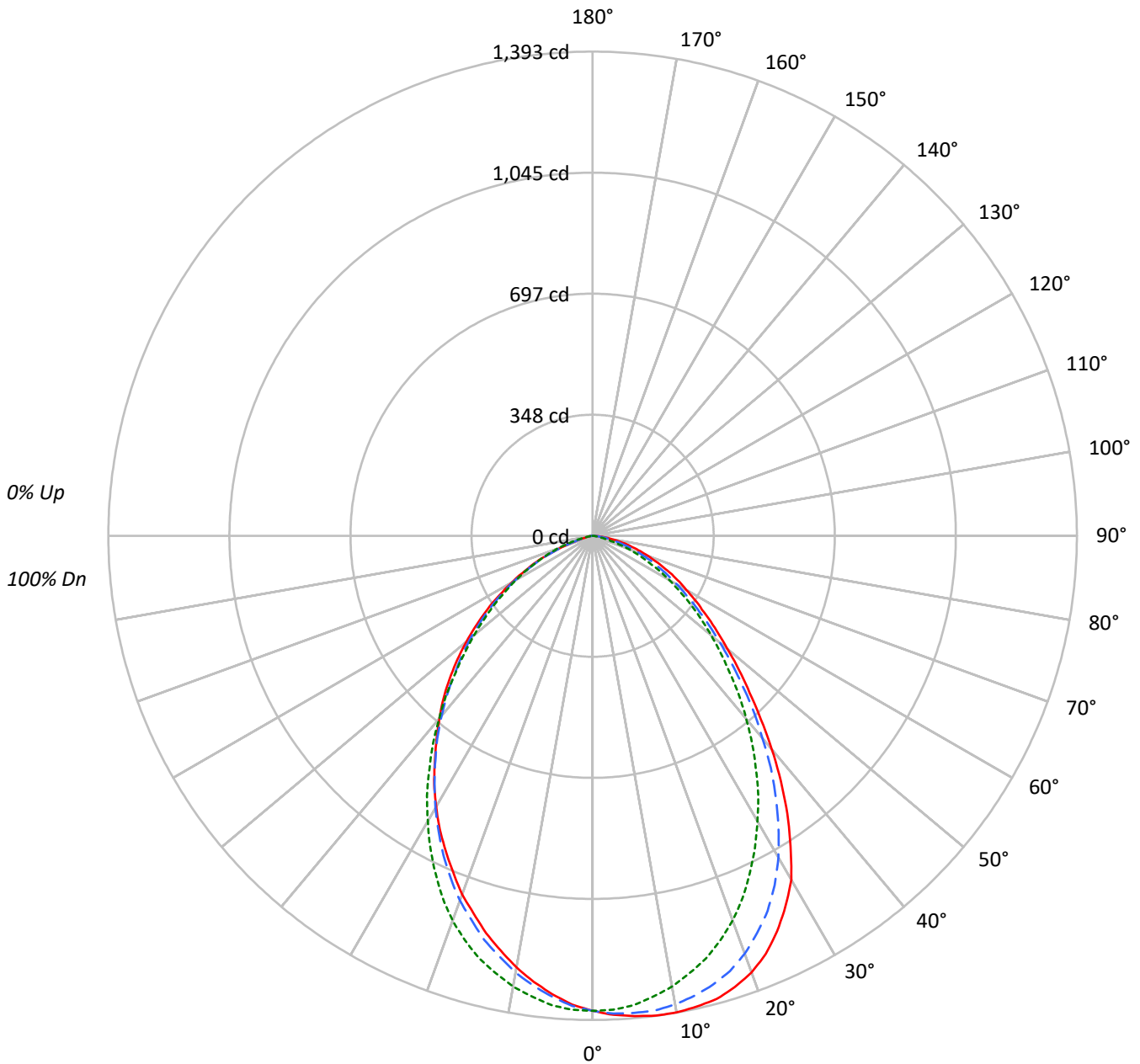
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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									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	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67																			
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47																			
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35																			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	42144	42144	42144
5°	42933	41961	40986
10°	43605	41229	39488
15°	44046	40202	37779
20°	43877	38653	36035
25°	42721	36419	34024
30°	40688	33762	32050
35°	36737	30816	29765
40°	32280	27654	27582
45°	27862	24312	25359
50°	24255	21324	22744
55°	21505	18515	19811
60°	19193	15646	16442
65°	17293	12703	12973
70°	15354	9521	7682
75°	13237	5516	3312
80°	10211	1971	994
85°	6545	637	637



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.3	5.0
10°-20°	357.2	13.9
20°-30°	505.2	19.7
30°-40°	532.3	20.8
40°-50°	452.4	17.7
50°-60°	325.8	12.7
60°-70°	187.9	7.3
70°-80°	64.3	2.5
80°-90°	8.8	0.3
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°	990.6	38.7
0°-40°	1522.9	59.4
0°-60°	2301.1	89.8
0°-90°	2562.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2562.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1367	1367	1367	1367	1367	
5°	1387	1378	1356	1332	1324	133
15°	1380	1337	1259	1204	1183	388
25°	1256	1191	1070	1015	1000	576
35°	976	919	819	789	791	608
45°	639	609	558	561	582	496
55°	400	368	344	357	368	360
65°	237	204	174	170	178	236
75°	111	83	46	30	28	117
85°	18	11	2	2	2	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1366.7	1366.7	1366.7	1366.7	1366.7	1366.7	1366.7	1366.7	1366.7	1366.7	1366.7
2.5°	1379.7	1381.5	1379.7	1379.7	1377.8	1376.0	1374.1	1372.3	1368.5	1364.9	1364.9
5°	1387.0	1390.8	1387.0	1387.0	1381.5	1377.8	1374.1	1368.5	1361.1	1355.6	1355.6
7.5°	1392.6	1392.6	1392.6	1387.0	1383.4	1377.8	1368.5	1359.3	1350.0	1340.8	1337.1
10°	1392.6	1392.6	1390.8	1383.4	1379.7	1368.5	1359.3	1346.4	1333.3	1320.4	1316.7
12.5°	1387.0	1389.0	1385.2	1377.8	1368.5	1355.6	1342.6	1325.9	1311.2	1296.3	1288.9
15°	1379.7	1377.8	1374.1	1364.9	1353.8	1337.1	1324.1	1305.6	1285.2	1266.7	1259.3
17.5°	1361.1	1361.1	1355.6	1346.4	1331.5	1313.0	1292.7	1272.2	1250.1	1229.6	1220.4
20°	1337.1	1337.1	1329.7	1318.6	1303.8	1279.7	1257.5	1233.4	1207.5	1187.1	1177.9
22.5°	1301.9	1303.8	1294.5	1281.5	1264.8	1237.1	1214.9	1185.2	1159.3	1135.3	1127.8
25°	1255.6	1259.3	1250.1	1237.1	1214.9	1190.8	1163.0	1135.3	1105.6	1081.6	1070.4
27.5°	1201.9	1203.8	1194.4	1181.5	1159.3	1133.3	1105.6	1076.0	1048.2	1022.3	1011.2
30°	1142.7	1135.3	1131.5	1114.8	1090.8	1068.6	1037.0	1013.0	983.3	961.2	948.2
32.5°	1059.3	1063.0	1051.9	1039.0	1020.5	994.5	968.6	940.7	913.0	896.3	887.0
35°	975.9	979.7	974.1	961.2	940.7	918.6	892.6	872.3	848.2	827.9	818.6
37.5°	889.0	889.0	885.2	877.8	863.0	842.6	816.7	796.3	776.0	759.3	753.7
40°	801.9	798.2	796.3	790.7	777.8	759.3	742.6	726.0	705.6	694.4	687.0
42.5°	716.7	716.7	712.9	707.5	694.4	685.2	668.5	650.0	635.3	624.1	624.1
45°	638.9	640.7	635.3	631.5	624.1	609.3	594.5	581.5	568.5	561.1	557.5
47.5°	570.4	570.4	564.9	561.1	553.7	540.8	527.8	516.7	507.4	501.8	500.0
50°	505.6	505.6	505.6	496.3	487.1	477.8	468.6	455.6	450.0	446.3	444.5
52.5°	450.0	448.1	448.1	440.7	431.5	420.4	411.1	400.0	394.5	390.8	392.6
55°	400.0	400.0	398.1	388.9	379.6	368.5	359.3	350.0	346.4	342.6	344.4
56°	379.6	379.6	377.8	370.4	359.3	350.0	338.9	329.7	324.1	325.9	325.9
57°	364.9	361.1	361.1	351.8	342.6	329.7	320.4	311.2	307.4	305.6	305.6
58°	346.4	344.4	342.6	333.3	324.1	313.0	303.7	294.5	288.9	288.9	287.1
59°	327.7	327.7	324.1	316.7	307.4	296.3	287.1	277.8	272.2	270.4	270.4
60°	311.2	313.0	307.4	300.0	292.6	279.6	268.6	261.1	255.5	253.7	253.7
61°	296.3	296.3	292.6	283.3	274.1	264.8	253.7	244.5	240.8	237.0	237.0
62°	283.3	279.6	277.8	268.6	259.3	248.1	238.9	229.6	224.1	220.4	222.2
63°	266.6	264.8	261.1	253.7	244.5	233.4	222.2	214.9	209.3	203.7	205.5
64°	253.7	251.9	246.3	238.9	229.6	218.5	207.4	200.0	196.3	190.8	188.9
65°	237.0	235.2	233.4	224.1	214.9	203.7	194.4	187.0	181.5	177.8	174.1
66°	222.2	224.1	220.4	212.9	201.9	192.6	179.7	172.3	168.5	163.0	159.2
67°	209.3	209.3	205.5	198.2	187.0	177.8	168.5	159.2	153.8	148.2	146.3
67.5°	201.9	201.9	198.2	188.9	181.5	170.3	161.1	153.8	146.3	142.6	138.9
68°	194.4	194.4	192.6	185.2	175.9	164.8	155.6	146.3	138.9	133.3	131.5
69°	181.5	183.3	179.7	172.3	163.0	151.8	142.6	135.1	127.8	122.2	118.6
70°	170.3	168.5	164.8	157.4	148.2	140.7	131.5	122.2	114.8	107.4	105.6
71°	155.6	155.6	151.8	146.3	137.1	127.8	118.6	111.1	103.7	94.5	92.6
72°	144.5	144.5	140.7	133.3	125.9	116.6	107.4	98.1	92.6	83.4	79.6
72.5°	137.1	138.9	135.1	127.8	120.4	109.2	101.9	94.5	85.2	77.8	74.0
73°	133.3	131.5	129.7	122.2	113.0	105.6	96.3	88.9	79.6	72.2	68.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	83.4	83.4	81.5	74.0	66.7	59.3	51.9	44.4	37.0	29.6	25.9
80°	57.5	59.3	55.5	51.9	46.3	38.8	31.5	25.9	18.5	14.8	11.1
82.5°	37.0	37.0	35.2	31.5	27.8	22.3	18.5	12.9	9.3	7.4	5.6
85°	18.5	20.3	18.5	16.7	12.9	11.1	9.3	5.6	3.7	1.8	1.8
87.5°	7.4	7.4	7.4	5.6	5.6	3.7	1.8	1.8	1.8	0.0	0.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1366.7	1366.7	1366.7	1366.7	1366.7	1366.7	1366.7	1366.7	1366.7	1366.7
2.5°	1361.1	1361.1	1357.4	1355.6	1353.8	1351.9	1350.0	1348.2	1348.2	1350.0
5°	1350.0	1346.4	1338.9	1337.1	1331.5	1329.7	1325.9	1324.1	1325.9	1324.1
7.5°	1333.3	1325.9	1316.7	1313.0	1305.6	1301.9	1296.3	1296.3	1292.7	1294.5
10°	1311.2	1300.1	1288.9	1281.5	1276.0	1270.4	1266.7	1263.0	1261.1	1261.1
12.5°	1283.4	1270.4	1259.3	1248.2	1239.0	1235.2	1227.8	1227.8	1224.1	1222.3
15°	1251.9	1235.2	1222.3	1211.1	1203.8	1196.4	1190.8	1187.1	1183.4	1183.4
17.5°	1211.1	1196.4	1183.4	1170.4	1159.3	1153.8	1148.2	1142.7	1142.7	1138.9
20°	1166.7	1150.0	1138.9	1126.0	1116.8	1107.4	1100.1	1100.1	1096.3	1098.1
22.5°	1116.8	1096.3	1085.2	1076.0	1066.7	1059.3	1051.9	1051.9	1050.0	1048.2
25°	1061.1	1044.5	1031.5	1020.5	1014.9	1007.4	1005.6	1001.8	1000.0	1000.0
27.5°	1001.8	988.9	972.3	966.7	959.3	955.6	955.6	953.7	950.1	951.9
30°	938.9	924.2	914.8	911.1	903.7	903.7	901.9	898.2	898.2	900.1
32.5°	877.8	863.0	855.6	853.8	846.4	846.4	844.4	846.4	846.4	848.2
35°	811.2	798.2	796.3	790.7	788.9	788.9	788.9	792.7	796.3	790.7
37.5°	748.1	738.9	733.4	731.6	733.4	733.4	735.2	740.8	738.9	737.0
40°	683.4	675.9	672.3	672.3	675.9	679.7	679.7	685.2	687.0	685.2
42.5°	618.6	613.0	613.0	614.8	618.6	620.4	626.0	631.5	633.3	635.3
45°	557.5	557.5	557.5	559.3	561.1	564.9	572.2	577.8	579.6	581.5
47.5°	498.2	496.3	501.8	503.8	509.3	511.1	516.7	524.1	525.9	527.8
50°	442.7	446.3	448.1	453.7	457.4	457.4	464.8	468.6	474.1	474.1
52.5°	390.8	396.3	398.1	403.7	405.5	407.5	411.1	416.7	420.4	420.4
55°	344.4	346.4	350.0	351.8	357.4	359.3	362.9	364.9	370.4	368.5
56°	324.1	327.7	329.7	333.3	337.0	338.9	342.6	344.4	348.2	350.0
57°	305.6	307.4	313.0	314.8	318.5	318.5	320.4	325.9	325.9	327.7
58°	287.1	290.7	292.6	294.5	298.2	300.0	303.7	305.6	307.4	305.6
59°	270.4	272.2	274.1	274.1	277.8	277.8	283.3	287.1	288.9	288.9
60°	253.7	253.7	255.5	257.4	261.1	263.0	263.0	266.6	266.6	266.6
61°	237.0	237.0	238.9	240.8	242.6	242.6	246.3	246.3	248.1	250.1
62°	222.2	220.4	220.4	222.2	222.2	226.0	227.8	229.6	231.4	229.6
63°	205.5	203.7	203.7	203.7	203.7	207.4	207.4	209.3	212.9	211.1
64°	187.0	187.0	187.0	187.0	188.9	188.9	192.6	194.4	196.3	198.2
65°	174.1	170.3	168.5	168.5	170.3	172.3	174.1	175.9	177.8	177.8
66°	159.2	155.6	153.8	153.8	153.8	153.8	157.4	157.4	161.1	161.1
67°	142.6	138.9	137.1	135.1	135.1	135.1	140.7	138.9	138.9	138.9
67.5°	137.1	131.5	129.7	127.8	125.9	129.7	127.8	129.7	129.7	127.8
68°	129.7	125.9	122.2	118.6	118.6	118.6	120.4	122.2	120.4	118.6
69°	114.8	113.0	107.4	103.7	101.9	103.7	101.9	103.7	101.9	103.7
70°	101.9	96.3	90.7	88.9	87.0	87.0	87.0	85.2	87.0	85.2
71°	88.9	83.4	77.8	74.0	72.2	72.2	70.4	72.2	70.4	72.2
72°	76.0	70.4	62.9	59.3	59.3	59.3	59.3	57.5	59.3	57.5
72.5°	70.4	62.9	57.5	53.7	51.9	51.9	51.9	51.9	50.0	51.9
73°	64.8	57.5	50.0	48.2	48.2	48.2	46.3	44.4	46.3	46.3



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	22.3	16.7	14.8	14.8	14.8	14.8	14.8	14.8	12.9	12.9
80°	9.3	7.4	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
82.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
85°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180° - - 45°-225° - - - - 90°-270°







74°	120.4	120.4	116.6	111.1	101.9	92.6	85.2	77.8	68.5	59.3	55.5
75°	111.1	109.2	105.6	100.0	92.6	83.4	76.0	66.7	59.3	50.0	46.3





74°	53.7	44.4	40.8	37.0	37.0	37.0	35.2	35.2	35.2	37.0
75°	42.6	35.2	31.5	27.8	29.6	27.8	29.6	27.8	27.8	27.8



(END OF REPORT)