

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: P584141

Luminaire Tested: **HC825D010-HM82555835-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584141
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-HM82555835-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2365.7 lumens
Efficiency: N/A
Efficacy: 88.3 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

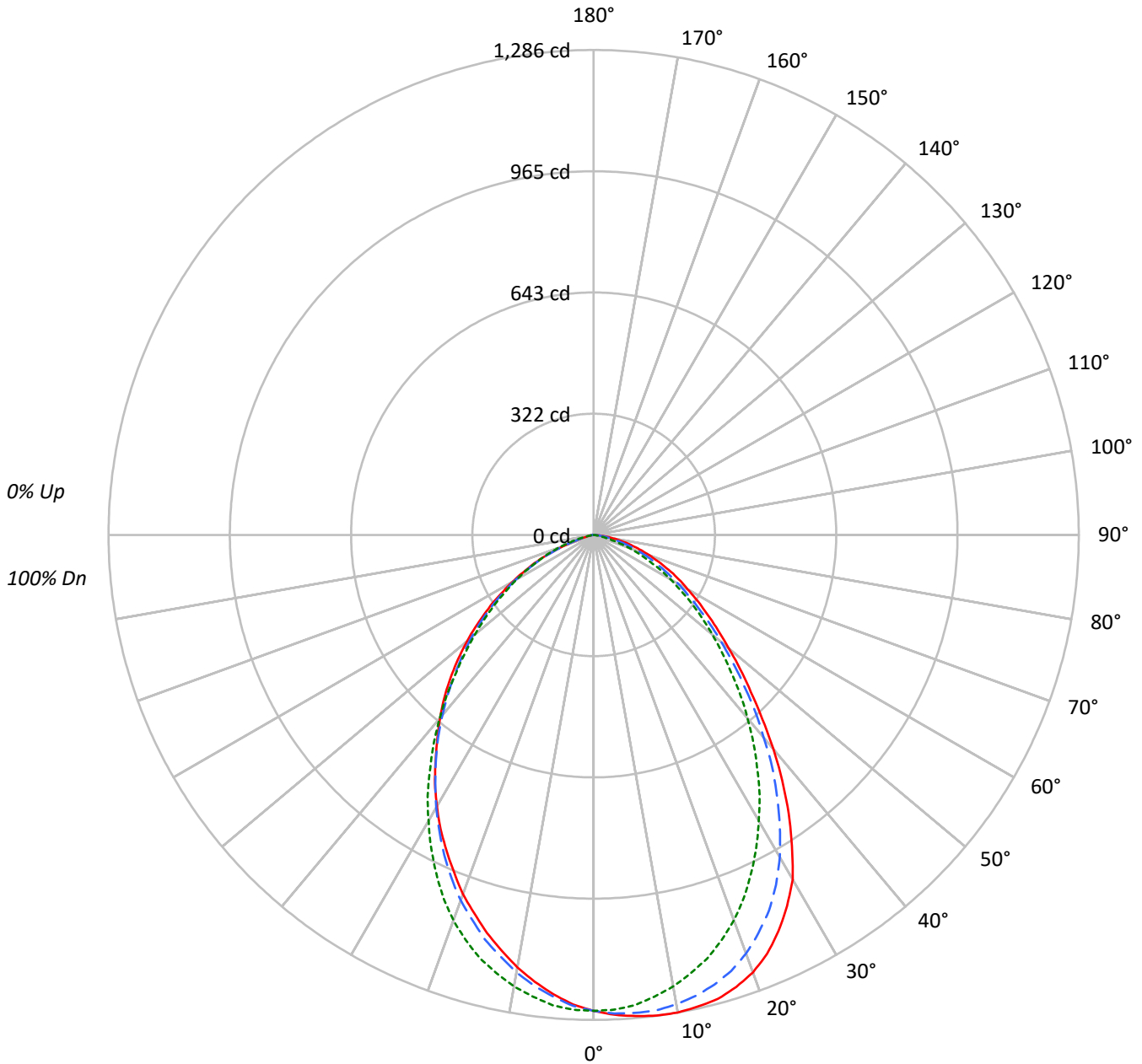
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88	88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77	77	77	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67	67	67	67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59	59	59	59
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54	52	52	52	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47	47	47	47
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42	42	42	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38	38	38	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35	35	35	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32	32	32	32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	38915	38915	38915
5°	39643	38745	37844
10°	40261	38066	36463
15°	40665	37121	34880
20°	40514	35687	33271
25°	39444	33629	31414
30°	37565	31174	29589
35°	33925	28448	27488
40°	29804	25537	25469
45°	25725	22446	23414
50°	22394	19683	20998
55°	19859	17096	18295
60°	17719	14444	15184
65°	15965	11725	11974
70°	14182	8791	7087
75°	12224	5099	3062
80°	9412	1829	906
85°	6050	601	601



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.5	5.0
10°-20°	329.8	13.9
20°-30°	466.4	19.7
30°-40°	491.5	20.8
40°-50°	417.7	17.7
50°-60°	300.8	12.7
60°-70°	173.5	7.3
70°-80°	59.4	2.5
80°-90°	8.2	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°	914.7	38.7
0°-40°	1406.1	59.4
0°-60°	2124.6	89.8
0°-90°	2365.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2365.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1262	1262	1262	1262	1262	
5°	1281	1272	1252	1229	1223	122
15°	1274	1235	1163	1111	1093	359
25°	1159	1099	988	937	923	532
35°	901	848	756	728	730	561
45°	590	563	515	518	537	458
55°	369	340	318	330	340	332
65°	219	188	161	157	164	218
75°	103	77	43	27	26	108
85°	17	10	2	2	2	23
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°	1262.0	1262.0	1262.0	1262.0	1262.0	1262.0	1262.0	1262.0	1262.0	1262.0	1262.0
2.5°	1273.8	1275.5	1273.8	1273.8	1272.1	1270.4	1268.7	1267.0	1263.6	1260.2	1260.2
5°	1280.7	1284.1	1280.7	1280.7	1275.5	1272.1	1268.7	1263.6	1256.8	1251.7	1251.7
7.5°	1285.8	1285.8	1285.8	1280.7	1277.3	1272.1	1263.6	1255.1	1243.1	1231.1	1219.2
10°	1285.8	1285.8	1284.1	1277.3	1273.8	1263.6	1255.1	1243.1	1231.1	1219.2	1215.7
12.5°	1280.7	1282.4	1279.0	1272.1	1263.6	1251.7	1239.7	1224.3	1210.6	1196.9	1190.1
15°	1273.8	1272.1	1268.7	1260.2	1250.0	1234.6	1222.6	1205.5	1186.6	1169.6	1162.8
17.5°	1256.8	1256.8	1251.7	1243.1	1229.4	1212.3	1193.5	1174.8	1154.2	1135.4	1126.8
20°	1234.6	1234.6	1227.7	1217.4	1203.8	1181.5	1161.1	1138.8	1114.8	1096.0	1087.5
22.5°	1202.0	1203.8	1195.2	1183.2	1167.9	1142.2	1121.7	1094.3	1070.4	1048.2	1041.3
25°	1159.3	1162.8	1154.2	1142.2	1121.7	1099.4	1073.9	1048.2	1020.8	998.6	988.4
27.5°	1109.7	1111.4	1102.8	1090.9	1070.4	1046.5	1020.8	993.5	967.8	943.8	933.6
30°	1055.0	1048.2	1044.7	1029.3	1007.1	986.6	957.5	935.3	908.0	887.5	875.5
32.5°	978.1	981.5	971.2	959.3	942.1	918.2	894.3	868.6	842.9	827.6	819.1
35°	901.2	904.6	899.4	887.5	868.6	848.1	824.2	805.4	783.1	764.3	755.7
37.5°	820.8	820.8	817.4	810.5	796.8	778.0	754.0	735.3	716.5	701.1	695.9
40°	740.4	737.0	735.3	730.2	718.2	701.1	685.7	670.2	651.5	641.3	634.4
42.5°	661.7	661.7	658.3	653.2	641.3	632.7	617.3	600.2	586.5	576.2	576.2
45°	589.9	591.6	586.5	583.0	576.2	562.6	548.9	536.9	524.9	518.1	514.7
47.5°	526.7	526.7	521.5	518.1	511.2	499.3	487.3	477.1	468.6	463.4	461.7
50°	466.8	466.8	466.8	458.3	449.7	441.2	432.6	420.6	415.5	412.1	410.3
52.5°	415.5	413.8	413.8	406.9	398.4	388.2	379.6	369.4	364.2	360.8	362.5
55°	369.4	369.4	367.7	359.1	350.5	340.3	331.7	323.1	319.7	316.3	318.0
56°	350.5	350.5	348.8	342.0	331.7	323.1	312.9	304.4	299.3	301.0	301.0
57°	336.8	333.4	333.4	324.9	316.3	304.4	295.9	287.3	283.9	282.2	282.2
58°	319.7	318.0	316.3	307.7	299.3	289.0	280.4	271.9	266.8	266.8	265.0
59°	302.7	302.7	299.3	292.4	283.9	273.6	265.0	256.5	251.3	249.6	249.6
60°	287.3	289.0	283.9	277.0	270.2	258.2	247.9	241.1	235.9	234.2	234.2
61°	273.6	273.6	270.2	261.6	253.1	244.5	234.2	225.7	222.2	218.8	218.8
62°	261.6	258.2	256.5	247.9	239.4	229.1	220.5	212.1	206.9	203.5	205.2
63°	246.2	244.5	241.1	234.2	225.7	215.5	205.2	198.4	193.2	188.1	189.8
64°	234.2	232.5	227.4	220.5	212.1	201.8	191.5	184.7	181.3	176.1	174.4
65°	218.8	217.2	215.5	206.9	198.4	188.1	179.5	172.7	167.6	164.1	160.7
66°	205.2	206.9	203.5	196.7	186.4	177.8	165.9	159.0	155.6	150.4	147.0
67°	193.2	193.2	189.8	183.0	172.7	164.1	155.6	147.0	141.9	136.7	135.0
67.5°	186.4	186.4	183.0	174.4	167.6	157.3	148.7	141.9	135.0	131.6	128.3
68°	179.5	179.5	177.8	171.0	162.4	152.2	143.6	135.0	128.3	123.2	121.4
69°	167.6	169.3	165.9	159.0	150.4	140.2	131.6	124.9	118.0	112.9	109.5
70°	157.3	155.6	152.2	145.3	136.7	130.0	121.4	112.9	106.0	99.2	97.5
71°	143.6	143.6	140.2	135.0	126.6	118.0	109.5	102.6	95.8	87.2	85.5
72°	133.3	133.3	130.0	123.2	116.3	107.7	99.2	90.6	85.5	76.9	73.5
72.5°	126.6	128.3	124.9	118.0	111.2	100.9	94.1	87.2	78.6	71.8	68.4
73°	123.2	121.4	119.7	112.9	104.3	97.5	88.9	82.1	73.5	66.7	63.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	76.9	76.9	75.2	68.4	61.5	54.7	47.8	41.1	34.2	27.4	24.0
80°	53.0	54.7	51.3	47.8	42.8	36.0	29.1	24.0	17.1	13.7	10.3
82.5°	34.2	34.2	32.5	29.1	25.7	20.5	17.1	12.0	8.6	6.8	5.1
85°	17.1	18.8	17.1	15.4	12.0	10.3	8.6	5.1	3.4	1.7	1.7
87.5°	6.8	6.8	6.8	5.1	5.1	3.4	1.7	1.7	1.7	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°	1262.0	1262.0	1262.0	1262.0	1262.0	1262.0	1262.0	1262.0	1262.0	1262.0
2.5°	1256.8	1256.8	1253.4	1251.7	1250.0	1248.3	1246.6	1244.8	1244.8	1246.6
5°	1246.6	1243.1	1236.3	1234.6	1229.4	1227.7	1224.3	1222.6	1224.3	1222.6
7.5°	1231.1	1224.3	1215.7	1212.3	1205.5	1202.0	1196.9	1196.9	1193.5	1195.2
10°	1210.6	1200.3	1190.1	1183.2	1178.1	1173.0	1169.6	1166.2	1164.5	1164.5
12.5°	1184.9	1173.0	1162.8	1152.5	1143.9	1140.5	1133.7	1133.7	1130.2	1128.5
15°	1155.9	1140.5	1128.5	1118.3	1111.4	1104.6	1099.4	1096.0	1092.6	1092.6
17.5°	1118.3	1104.6	1092.6	1080.7	1070.4	1065.3	1060.2	1055.0	1055.0	1051.6
20°	1077.3	1061.9	1051.6	1039.6	1031.1	1022.5	1015.6	1015.6	1012.2	1013.9
22.5°	1031.1	1012.2	1001.9	993.5	984.9	978.1	971.2	971.2	969.5	967.8
25°	979.8	964.4	952.4	942.1	937.0	930.2	928.4	925.0	923.3	923.3
27.5°	925.0	913.1	897.7	892.6	885.7	882.3	882.3	880.6	877.2	878.9
30°	866.9	853.2	844.7	841.2	834.4	834.4	832.7	829.2	829.2	831.0
32.5°	810.5	796.8	790.0	788.3	781.4	781.4	779.7	781.4	781.4	783.1
35°	748.9	737.0	735.3	730.2	728.5	728.5	728.5	731.9	735.3	730.2
37.5°	690.8	682.2	677.1	675.4	677.1	677.1	678.8	683.9	682.2	680.5
40°	631.0	624.1	620.7	620.7	624.1	627.6	627.6	632.7	634.4	632.7
42.5°	571.1	566.0	566.0	567.6	571.1	572.8	577.9	583.0	584.8	586.5
45°	514.7	514.7	514.7	516.4	518.1	521.5	528.4	533.5	535.2	536.9
47.5°	460.0	458.3	463.4	465.1	470.3	472.0	477.1	483.9	485.6	487.3
50°	408.6	412.1	413.8	418.9	422.3	422.3	429.2	432.6	437.7	437.7
52.5°	360.8	365.9	367.7	372.8	374.5	376.2	379.6	384.8	388.2	388.2
55°	318.0	319.7	323.1	324.9	330.0	331.7	335.1	336.8	342.0	340.3
56°	299.3	302.7	304.4	307.7	311.2	312.9	316.3	318.0	321.4	323.1
57°	282.2	283.9	289.0	290.7	294.1	294.1	295.9	301.0	301.0	302.7
58°	265.0	268.5	270.2	271.9	275.3	277.0	280.4	282.2	283.9	282.2
59°	249.6	251.3	253.1	253.1	256.5	256.5	261.6	265.0	266.8	266.8
60°	234.2	234.2	235.9	237.6	241.1	242.8	242.8	246.2	246.2	246.2
61°	218.8	218.8	220.5	222.2	224.0	224.0	227.4	227.4	229.1	230.8
62°	205.2	203.5	203.5	205.2	205.2	208.6	210.4	212.1	213.8	212.1
63°	189.8	188.1	188.1	188.1	188.1	191.5	191.5	193.2	196.7	195.0
64°	172.7	172.7	172.7	172.7	174.4	174.4	177.8	179.5	181.3	183.0
65°	160.7	157.3	155.6	155.6	157.3	159.0	160.7	162.4	164.1	164.1
66°	147.0	143.6	141.9	141.9	141.9	141.9	145.3	145.3	148.7	148.7
67°	131.6	128.3	126.6	124.9	124.9	124.9	130.0	128.3	128.3	128.3
67.5°	126.6	121.4	119.7	118.0	116.3	119.7	118.0	119.7	119.7	118.0
68°	119.7	116.3	112.9	109.5	109.5	109.5	111.2	112.9	111.2	109.5
69°	106.0	104.3	99.2	95.8	94.1	95.8	94.1	95.8	94.1	95.8
70°	94.1	88.9	83.8	82.1	80.4	80.4	80.4	78.6	80.4	78.6
71°	82.1	76.9	71.8	68.4	66.7	66.7	64.9	66.7	64.9	66.7
72°	70.1	64.9	58.1	54.7	54.7	54.7	54.7	53.0	54.7	53.0
72.5°	64.9	58.1	53.0	49.5	47.8	47.8	47.8	47.8	46.1	47.8
73°	59.8	53.0	46.1	44.4	44.4	44.4	42.8	41.1	42.8	42.8



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	20.5	15.4	13.7	13.7	13.7	13.7	13.7	13.7	12.0	12.0
80°	8.6	6.8	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
82.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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°	111.2	111.2	107.7	102.6	94.1	85.5	78.6	71.8	63.2	54.7	51.3
75°	102.6	100.9	97.5	92.3	85.5	76.9	70.1	61.5	54.7	46.1	42.8





74°	49.5	41.1	37.7	34.2	34.2	34.2	32.5	32.5	32.5	34.2
75°	39.4	32.5	29.1	25.7	27.4	25.7	27.4	25.7	25.7	25.7



(END OF REPORT)