

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: P584107

Luminaire Tested: **HC825D010-HM82555827-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584107
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-HM82555827-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2285.4 lumens
Efficiency: N/A
Efficacy: 85.3 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

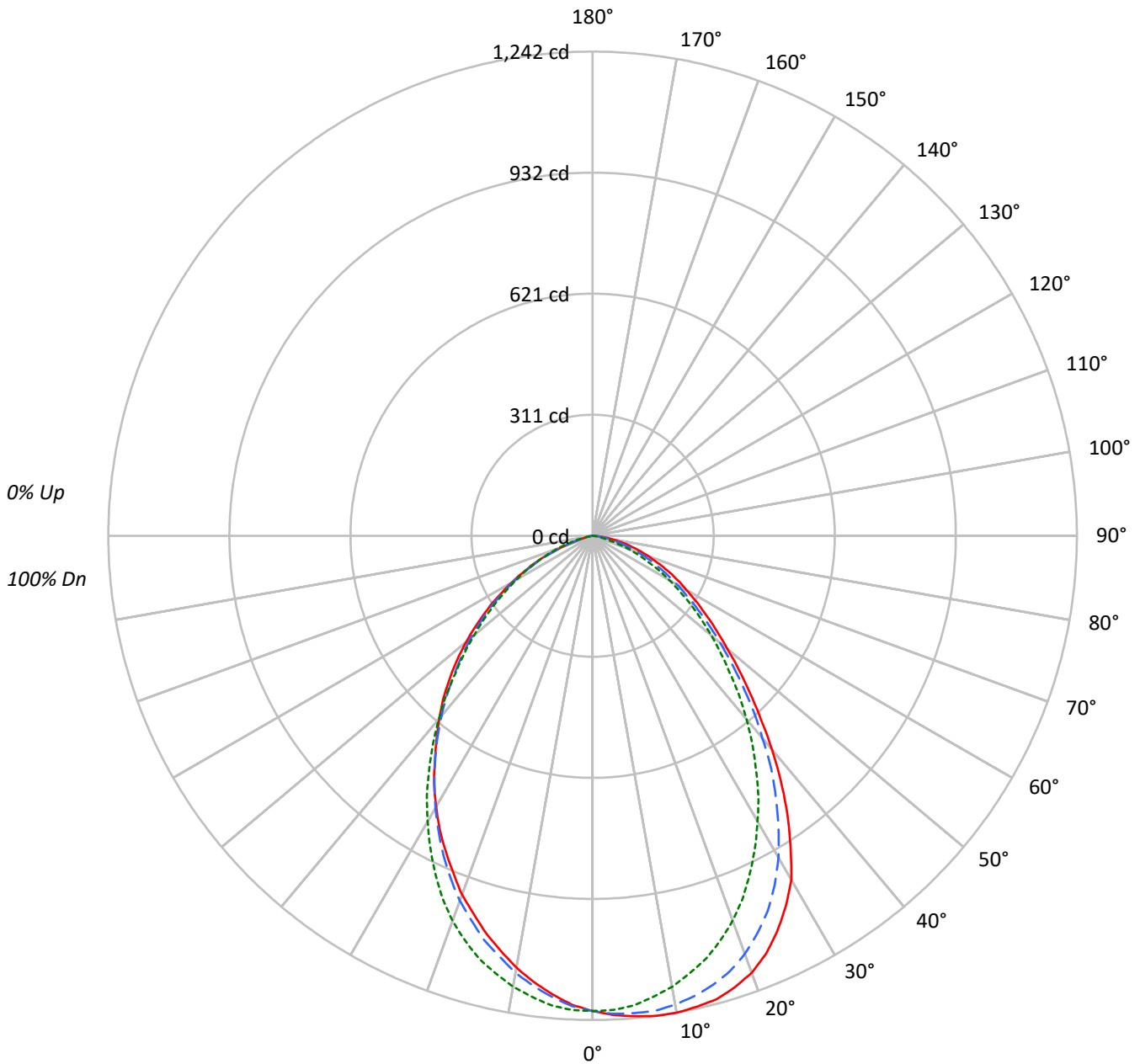
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	37593	37593	37593
5°	38296	37430	36560
10°	38896	36776	35223
15°	39286	35860	33699
20°	39136	34476	32146
25°	38107	32486	30353
30°	36290	30113	28585
35°	32773	27488	26550
40°	28794	24672	24603
45°	24853	21682	22620
50°	21636	19016	20288
55°	19182	16516	17671
60°	17120	13957	14672
65°	15425	11331	11572
70°	13695	8493	6852
75°	11807	4921	2955
80°	9110	1776	870
85°	5838	566	566



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.4	5.0
10°-20°	318.6	13.9
20°-30°	450.6	19.7
30°-40°	474.8	20.8
40°-50°	403.5	17.7
50°-60°	290.6	12.7
60°-70°	167.6	7.3
70°-80°	57.4	2.5
80°-90°	7.9	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°	883.6	38.7
0°-40°	1358.4	59.4
0°-60°	2052.5	89.8
0°-90°	2285.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2285.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1219	1219	1219	1219	1219	
5°	1237	1229	1209	1188	1181	118
15°	1231	1193	1123	1074	1056	347
25°	1120	1062	955	905	892	514
35°	871	819	730	704	705	542
45°	570	544	497	500	519	443
55°	357	329	307	319	329	321
65°	211	182	155	152	159	210
75°	99	74	41	26	25	105
85°	16	10	2	2	2	22
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°	1219.1	1219.1	1219.1	1219.1	1219.1	1219.1	1219.1	1219.1	1219.1	1219.1	1219.1
2.5°	1230.6	1232.3	1230.6	1230.6	1229.0	1227.4	1225.7	1224.1	1220.8	1217.4	1217.4
5°	1237.2	1240.6	1237.2	1237.2	1232.3	1229.0	1225.7	1220.8	1214.1	1209.2	1209.2
7.5°	1242.2	1242.2	1242.2	1237.2	1233.9	1229.0	1220.8	1212.5	1204.2	1195.9	1192.6
10°	1242.2	1242.2	1240.6	1233.9	1230.6	1220.8	1212.5	1201.0	1189.3	1177.7	1174.5
12.5°	1237.2	1239.0	1235.6	1229.0	1220.8	1209.2	1197.7	1182.8	1169.5	1156.3	1149.7
15°	1230.6	1229.0	1225.7	1217.4	1207.5	1192.6	1181.1	1164.6	1146.4	1129.9	1123.3
17.5°	1214.1	1214.1	1209.2	1201.0	1187.7	1171.2	1153.0	1134.8	1115.0	1096.9	1088.6
20°	1192.6	1192.6	1186.1	1176.1	1162.9	1141.5	1121.7	1100.2	1077.1	1058.9	1050.6
22.5°	1161.3	1162.9	1154.6	1143.1	1128.2	1103.5	1083.6	1057.2	1034.0	1012.6	1006.0
25°	1120.0	1123.3	1115.0	1103.5	1083.6	1062.2	1037.4	1012.6	986.2	964.7	954.8
27.5°	1072.0	1073.7	1065.5	1054.0	1034.0	1010.9	986.2	959.8	935.0	911.9	901.9
30°	1019.2	1012.6	1009.3	994.5	973.0	953.2	925.0	903.6	877.2	857.3	845.7
32.5°	944.9	948.2	938.3	926.7	910.1	887.0	863.9	839.2	814.4	799.5	791.3
35°	870.6	873.9	868.8	857.3	839.2	819.3	796.2	778.0	756.6	738.4	730.2
37.5°	792.9	792.9	789.6	783.0	769.8	751.6	728.5	710.3	692.2	677.3	672.3
40°	715.3	712.0	710.3	705.3	693.8	677.3	662.4	647.6	629.4	619.4	612.9
42.5°	639.3	639.3	636.0	631.0	619.4	611.2	596.3	579.8	566.6	556.7	556.7
45°	569.9	571.6	566.6	563.2	556.7	543.5	530.3	518.7	507.2	500.5	497.2
47.5°	508.8	508.8	503.9	500.5	493.9	482.4	470.8	460.8	452.6	447.7	446.0
50°	451.0	451.0	451.0	442.7	434.4	426.2	417.9	406.4	401.4	398.1	396.4
52.5°	401.4	399.8	399.8	393.1	384.9	374.9	366.7	356.8	351.8	348.5	350.2
55°	356.8	356.8	355.1	346.9	338.7	328.7	320.5	312.2	308.9	305.6	307.2
56°	338.7	338.7	336.9	330.4	320.5	312.2	302.3	294.0	289.1	290.7	290.7
57°	325.4	322.1	322.1	313.8	305.6	294.0	285.8	277.6	274.2	272.5	272.5
58°	308.9	307.2	305.6	297.4	289.1	279.2	270.9	262.7	257.7	257.7	256.1
59°	292.4	292.4	289.1	282.5	274.2	264.3	256.1	247.8	242.8	241.2	241.2
60°	277.6	279.2	274.2	267.6	261.0	249.4	239.6	232.9	227.9	226.3	226.3
61°	264.3	264.3	261.0	252.7	244.5	236.3	226.3	218.1	214.7	211.4	211.4
62°	252.7	249.4	247.8	239.6	231.2	221.4	213.1	204.8	199.9	196.6	198.3
63°	237.9	236.3	232.9	226.3	218.1	208.1	198.3	191.6	186.7	181.7	183.4
64°	226.3	224.7	219.7	213.1	204.8	195.0	185.0	178.4	175.1	170.1	168.5
65°	211.4	209.8	208.1	199.9	191.6	181.7	173.4	166.8	161.9	158.6	155.3
66°	198.3	199.9	196.6	189.9	180.1	171.8	160.3	153.7	150.3	145.4	142.1
67°	186.7	186.7	183.4	176.8	166.8	158.6	150.3	142.1	137.1	132.1	130.5
67.5°	180.1	180.1	176.8	168.5	161.9	151.9	143.7	137.1	130.5	127.2	123.9
68°	173.4	173.4	171.8	165.2	157.0	147.0	138.8	130.5	123.9	119.0	117.3
69°	161.9	163.5	160.3	153.7	145.4	135.5	127.2	120.6	114.0	109.0	105.7
70°	151.9	150.3	147.0	140.4	132.1	125.5	117.3	109.0	102.4	95.8	94.2
71°	138.8	138.8	135.5	130.5	122.2	114.0	105.7	99.1	92.6	84.2	82.6
72°	128.8	128.8	125.5	119.0	112.4	104.1	95.8	87.5	82.6	74.4	71.0
72.5°	122.2	123.9	120.6	114.0	107.3	97.5	90.8	84.2	76.0	69.3	66.1
73°	119.0	117.3	115.7	109.0	100.8	94.2	85.9	79.3	71.0	64.4	61.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	74.4	74.4	72.7	66.1	59.5	52.9	46.2	39.7	33.1	26.4	23.1
80°	51.3	52.9	49.5	46.2	41.3	34.7	28.0	23.1	16.5	13.3	10.0
82.5°	33.1	33.1	31.4	28.0	24.8	19.8	16.5	11.6	8.2	6.6	4.9
85°	16.5	18.2	16.5	14.9	11.6	10.0	8.2	4.9	3.3	1.6	1.6
87.5°	6.6	6.6	6.6	4.9	4.9	3.3	1.6	1.6	1.6	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°	1219.1	1219.1	1219.1	1219.1	1219.1	1219.1	1219.1	1219.1	1219.1	1219.1
2.5°	1214.1	1214.1	1210.8	1209.2	1207.5	1205.9	1204.2	1202.6	1202.6	1204.2
5°	1204.2	1201.0	1194.3	1192.6	1187.7	1186.1	1182.8	1181.1	1182.8	1181.1
7.5°	1189.3	1182.8	1174.5	1171.2	1164.6	1161.3	1156.3	1156.3	1153.0	1154.6
10°	1169.5	1159.7	1149.7	1143.1	1138.2	1133.2	1129.9	1126.6	1124.9	1124.9
12.5°	1144.8	1133.2	1123.3	1113.3	1105.1	1101.8	1095.1	1095.1	1091.9	1090.2
15°	1116.7	1101.8	1090.2	1080.4	1073.7	1067.1	1062.2	1058.9	1055.6	1055.6
17.5°	1080.4	1067.1	1055.6	1044.0	1034.0	1029.1	1024.2	1019.2	1019.2	1015.9
20°	1040.7	1025.8	1015.9	1004.3	996.1	987.8	981.2	981.2	977.9	979.6
22.5°	996.1	977.9	968.0	959.8	951.4	944.9	938.3	938.3	936.6	935.0
25°	946.5	931.6	920.1	910.1	905.2	898.6	897.0	893.7	892.1	892.1
27.5°	893.7	882.1	867.2	862.3	855.7	852.4	852.4	850.8	847.4	849.0
30°	837.5	824.3	816.0	812.8	806.1	806.1	804.4	801.2	801.2	802.8
32.5°	783.0	769.8	763.1	761.5	754.9	754.9	753.3	754.9	754.9	756.6
35°	723.5	712.0	710.3	705.3	703.7	703.7	703.7	707.1	710.3	705.3
37.5°	667.4	659.1	654.2	652.5	654.2	654.2	655.8	660.7	659.1	657.4
40°	609.6	602.9	599.6	599.6	602.9	606.3	606.3	611.2	612.9	611.2
42.5°	551.7	546.8	546.8	548.4	551.7	553.4	558.3	563.2	565.0	566.6
45°	497.2	497.2	497.2	498.8	500.5	503.9	510.4	515.4	517.0	518.7
47.5°	444.4	442.7	447.7	449.3	454.2	455.9	460.8	467.5	469.1	470.8
50°	394.8	398.1	399.8	404.7	408.0	408.0	414.6	417.9	422.9	422.9
52.5°	348.5	353.5	355.1	360.2	361.8	363.4	366.7	371.7	374.9	374.9
55°	307.2	308.9	312.2	313.8	318.9	320.5	323.8	325.4	330.4	328.7
56°	289.1	292.4	294.0	297.4	300.7	302.3	305.6	307.2	310.5	312.2
57°	272.5	274.2	279.2	280.8	284.1	284.1	285.8	290.7	290.7	292.4
58°	256.1	259.4	261.0	262.7	266.0	267.6	270.9	272.5	274.2	272.5
59°	241.2	242.8	244.5	244.5	247.8	247.8	252.7	256.1	257.7	257.7
60°	226.3	226.3	227.9	229.6	232.9	234.5	234.5	237.9	237.9	237.9
61°	211.4	211.4	213.1	214.7	216.4	216.4	219.7	219.7	221.4	223.0
62°	198.3	196.6	196.6	198.3	198.3	201.5	203.2	204.8	206.5	204.8
63°	183.4	181.7	181.7	181.7	181.7	185.0	185.0	186.7	189.9	188.3
64°	166.8	166.8	166.8	166.8	168.5	168.5	171.8	173.4	175.1	176.8
65°	155.3	151.9	150.3	150.3	151.9	153.7	155.3	157.0	158.6	158.6
66°	142.1	138.8	137.1	137.1	137.1	137.1	140.4	140.4	143.7	143.7
67°	127.2	123.9	122.2	120.6	120.6	120.6	125.5	123.9	123.9	123.9
67.5°	122.2	117.3	115.7	114.0	112.4	115.7	114.0	115.7	115.7	114.0
68°	115.7	112.4	109.0	105.7	105.7	105.7	107.3	109.0	107.3	105.7
69°	102.4	100.8	95.8	92.6	90.8	92.6	90.8	92.6	90.8	92.6
70°	90.8	85.9	80.9	79.3	77.7	77.7	77.7	76.0	77.7	76.0
71°	79.3	74.4	69.3	66.1	64.4	64.4	62.8	64.4	62.8	64.4
72°	67.7	62.8	56.2	52.9	52.9	52.9	52.9	51.3	52.9	51.3
72.5°	62.8	56.2	51.3	47.9	46.2	46.2	46.2	46.2	44.6	46.2
73°	57.8	51.3	44.6	42.9	42.9	42.9	41.3	39.7	41.3	41.3



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	19.8	14.9	13.3	13.3	13.3	13.3	13.3	13.3	11.6	11.6
80°	8.2	6.6	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
82.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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°	107.3	107.3	104.1	99.1	90.8	82.6	76.0	69.3	61.1	52.9	49.5
75°	99.1	97.5	94.2	89.2	82.6	74.4	67.7	59.5	52.9	44.6	41.3





74°	47.9	39.7	36.4	33.1	33.1	33.1	31.4	31.4	31.4	33.1
75°	38.0	31.4	28.0	24.8	26.4	24.8	26.4	24.8	24.8	24.8



(END OF REPORT)