

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: P584175

Luminaire Tested: **HC825D010-HM82555927-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584175
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-HM82555927-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1842.7 lumens
Efficiency: N/A
Efficacy: 68.8 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

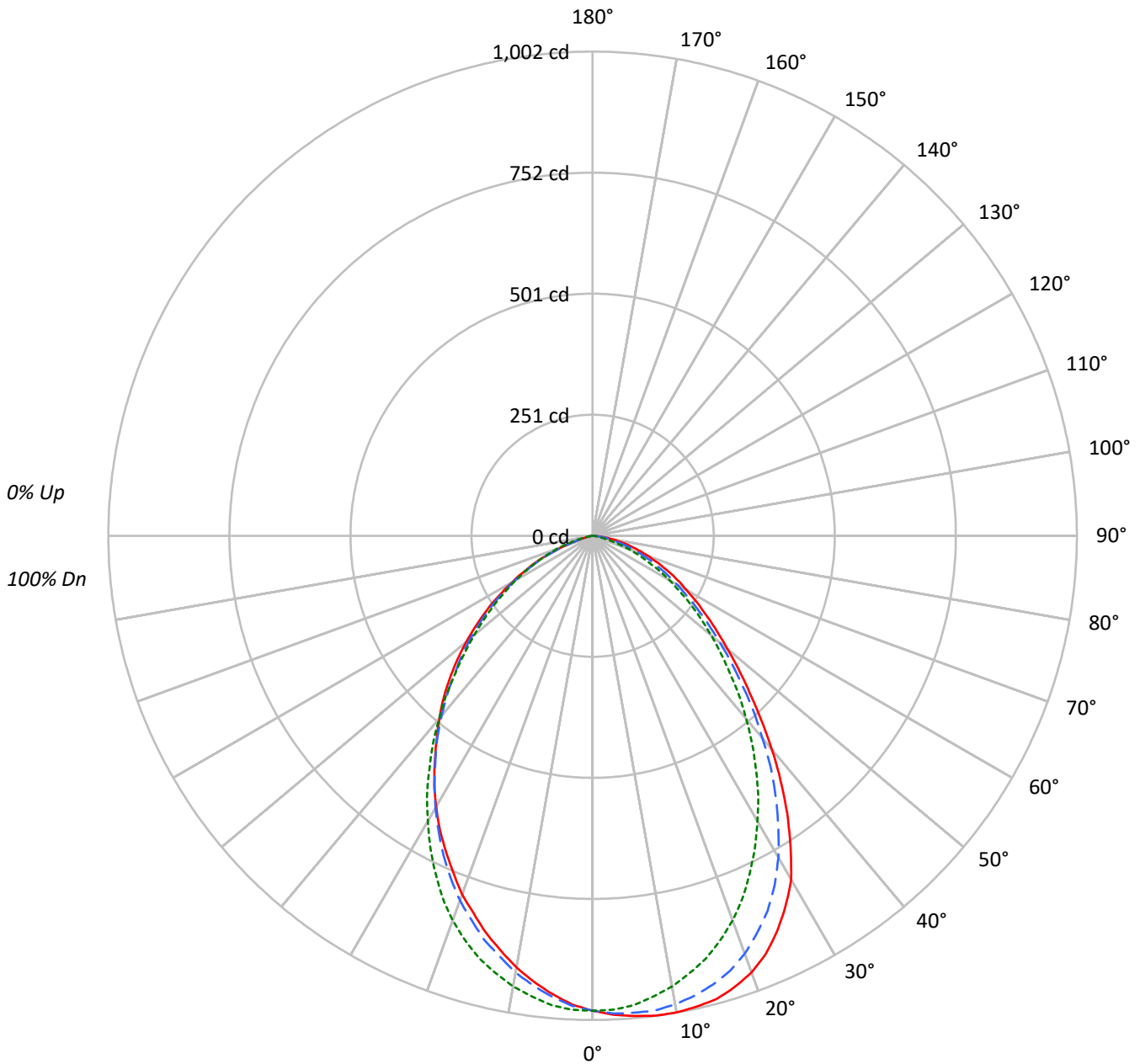
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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CATALOG NUMBER: HC825D010-HM82555927-81RWWH

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°	30309	30309	30309
5°	30880	30180	29478
10°	31362	29652	28400
15°	31678	28910	27171
20°	31555	27798	25918
25°	30727	26195	24474
30°	29262	24280	23052
35°	26422	22161	21408
40°	23214	19889	19837
45°	20038	17483	18242
50°	17443	15332	16359
55°	15467	13317	14247
60°	13796	11249	11823
65°	12441	9135	9332
70°	11045	6852	5527
75°	9519	3967	2383
80°	7334	1421	710
85°	4706	460	460



TEST NUMBER: P584175

CATALOG NUMBER: HC825D010-HM82555927-81RWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.3	5.0
10°-20°	256.9	13.9
20°-30°	363.3	19.7
30°-40°	382.8	20.8
40°-50°	325.4	17.7
50°-60°	234.3	12.7
60°-70°	135.2	7.3
70°-80°	46.2	2.5
80°-90°	6.4	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°	712.5	38.7
0°-40°	1095.3	59.4
0°-60°	1654.9	89.8
0°-90°	1842.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1842.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	983	983	983	983	983	
5°	998	991	975	958	952	95
15°	992	962	906	866	851	279
25°	903	856	770	730	719	414
35°	702	661	589	567	569	437
45°	460	438	401	404	418	357
55°	288	265	248	257	265	259
65°	170	146	125	122	128	170
75°	80	60	33	21	20	84
85°	13	8	1	1	1	18
90°	0	0	0	0	0	



TEST NUMBER: P584175

CATALOG NUMBER: HC825D010-HM82555927-81RWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9
2.5°	992.3	993.6	992.3	992.3	990.9	989.6	988.3	987.0	984.3	981.6	981.6
5°	997.6	1000.2	997.6	997.6	993.6	990.9	988.3	984.3	978.9	975.0	975.0
7.5°	1001.6	1001.6	1001.6	997.6	994.9	990.9	984.3	977.7	970.9	964.3	961.6
10°	1001.6	1001.6	1000.2	994.9	992.3	984.3	977.7	968.2	958.9	949.6	947.0
12.5°	997.6	999.0	996.3	990.9	984.3	975.0	965.7	953.7	943.0	932.3	927.0
15°	992.3	990.9	988.3	981.6	973.6	961.6	952.3	939.0	924.4	911.0	905.6
17.5°	978.9	978.9	975.0	968.2	957.6	944.3	929.6	915.1	899.0	884.4	877.7
20°	961.6	961.6	956.3	948.3	937.6	920.3	904.4	887.0	868.4	853.8	847.1
22.5°	936.4	937.6	931.0	921.7	909.7	889.7	873.8	852.5	833.7	816.4	811.2
25°	903.1	905.6	899.0	889.7	873.8	856.4	836.4	816.4	795.1	777.8	769.9
27.5°	864.5	865.7	859.1	849.8	833.7	815.1	795.1	773.8	753.8	735.2	727.2
30°	821.8	816.4	813.8	801.8	784.5	768.5	745.9	728.6	707.3	691.2	681.9
32.5°	761.8	764.5	756.5	747.2	733.9	715.2	696.6	676.6	656.7	644.7	637.9
35°	701.9	704.6	700.5	691.2	676.6	660.6	642.0	627.3	610.0	595.3	588.7
37.5°	639.3	639.3	636.7	631.3	620.7	606.0	587.3	572.7	558.1	546.1	542.1
40°	576.7	574.1	572.7	568.7	559.4	546.1	534.1	522.1	507.5	499.5	494.1
42.5°	515.4	515.4	512.7	508.8	499.5	492.8	480.9	467.5	456.9	448.9	448.9
45°	459.5	460.8	456.9	454.2	448.9	438.2	427.6	418.3	408.8	403.6	400.9
47.5°	410.2	410.2	406.3	403.6	398.3	388.9	379.6	371.6	365.0	360.9	359.6
50°	363.6	363.6	363.6	357.0	350.3	343.6	336.9	327.6	323.7	321.0	319.6
52.5°	323.7	322.3	322.3	317.0	310.3	302.4	295.6	287.7	283.7	281.0	282.4
55°	287.7	287.7	286.3	279.7	273.1	265.0	258.4	251.8	249.1	246.4	247.7
56°	273.1	273.1	271.7	266.4	258.4	251.8	243.7	237.1	233.0	234.4	234.4
57°	262.4	259.7	259.7	253.1	246.4	237.1	230.4	223.7	221.1	219.8	219.8
58°	249.1	247.7	246.4	239.8	233.0	225.1	218.4	211.8	207.8	207.8	206.4
59°	235.7	235.7	233.0	227.8	221.1	213.1	206.4	199.8	195.8	194.4	194.4
60°	223.7	225.1	221.1	215.8	210.5	201.2	193.1	187.8	183.8	182.4	182.4
61°	213.1	213.1	210.5	203.7	197.1	190.5	182.4	175.8	173.1	170.5	170.5
62°	203.7	201.2	199.8	193.1	186.5	178.5	171.8	165.2	161.1	158.5	159.9
63°	191.7	190.5	187.8	182.4	175.8	167.8	159.9	154.5	150.5	146.5	147.9
64°	182.4	181.2	177.2	171.8	165.2	157.2	149.2	143.8	141.1	137.2	135.9
65°	170.5	169.2	167.8	161.1	154.5	146.5	139.8	134.5	130.5	127.9	125.2
66°	159.9	161.1	158.5	153.1	145.2	138.6	129.1	123.9	121.2	117.2	114.5
67°	150.5	150.5	147.9	142.5	134.5	127.9	121.2	114.5	110.5	106.6	105.2
67.5°	145.2	145.2	142.5	135.9	130.5	122.5	115.9	110.5	105.2	102.5	99.9
68°	139.8	139.8	138.6	133.2	126.6	118.6	111.9	105.2	99.9	95.9	94.6
69°	130.5	131.8	129.1	123.9	117.2	109.2	102.5	97.3	91.9	88.0	85.3
70°	122.5	121.2	118.6	113.2	106.6	101.2	94.6	88.0	82.6	77.3	76.0
71°	111.9	111.9	109.2	105.2	98.5	91.9	85.3	79.9	74.6	67.9	66.6
72°	103.9	103.9	101.2	95.9	90.5	83.9	77.3	70.6	66.6	59.9	57.2
72.5°	98.5	99.9	97.3	91.9	86.6	78.5	73.3	67.9	61.3	56.0	53.3
73°	95.9	94.6	93.2	88.0	81.2	76.0	69.2	63.9	57.2	51.9	49.3



TEST NUMBER: P584175

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	59.9	59.9	58.6	53.3	47.9	42.6	37.3	32.0	26.6	21.3	18.6
80°	41.3	42.6	39.9	37.3	33.3	27.9	22.7	18.6	13.3	10.7	8.0
82.5°	26.6	26.6	25.4	22.7	20.0	15.9	13.3	9.3	6.6	5.4	4.0
85°	13.3	14.7	13.3	12.0	9.3	8.0	6.6	4.0	2.7	1.3	1.3
87.5°	5.4	5.4	5.4	4.0	4.0	2.7	1.3	1.3	1.3	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°	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9	982.9
2.5°	978.9	978.9	976.3	975.0	973.6	972.3	970.9	969.6	969.6	970.9
5°	970.9	968.2	963.0	961.6	957.6	956.3	953.7	952.3	953.7	952.3
7.5°	958.9	953.7	947.0	944.3	939.0	936.4	932.3	932.3	929.6	931.0
10°	943.0	935.0	927.0	921.7	917.6	913.7	911.0	908.3	907.0	907.0
12.5°	923.0	913.7	905.6	897.7	891.0	888.4	883.1	883.1	880.4	879.0
15°	900.4	888.4	879.0	871.1	865.7	860.4	856.4	853.8	851.1	851.1
17.5°	871.1	860.4	851.1	841.8	833.7	829.8	825.8	821.8	821.8	819.1
20°	839.1	827.1	819.1	809.8	803.1	796.5	791.2	791.2	788.5	789.8
22.5°	803.1	788.5	780.5	773.8	767.2	761.8	756.5	756.5	755.2	753.8
25°	763.2	751.1	741.8	733.9	729.8	724.6	723.2	720.5	719.3	719.3
27.5°	720.5	711.2	699.2	695.3	689.9	687.3	687.3	686.0	683.3	684.6
30°	675.3	664.6	657.9	655.3	649.9	649.9	648.6	646.0	646.0	647.4
32.5°	631.3	620.7	615.4	614.0	608.7	608.7	607.3	608.7	608.7	610.0
35°	583.4	574.1	572.7	568.7	567.4	567.4	567.4	570.1	572.7	568.7
37.5°	538.1	531.5	527.4	526.1	527.4	527.4	528.8	532.8	531.5	530.1
40°	491.5	486.1	483.5	483.5	486.1	488.8	488.8	492.8	494.1	492.8
42.5°	444.9	440.8	440.8	442.2	444.9	446.2	450.1	454.2	455.5	456.9
45°	400.9	400.9	400.9	402.2	403.6	406.3	411.5	415.6	416.9	418.3
47.5°	358.2	357.0	360.9	362.3	366.3	367.7	371.6	377.0	378.2	379.6
50°	318.3	321.0	322.3	326.4	329.0	329.0	334.3	336.9	341.0	341.0
52.5°	281.0	285.0	286.3	290.4	291.7	293.0	295.6	299.7	302.4	302.4
55°	247.7	249.1	251.8	253.1	257.0	258.4	261.1	262.4	266.4	265.0
56°	233.0	235.7	237.1	239.8	242.4	243.7	246.4	247.7	250.4	251.8
57°	219.8	221.1	225.1	226.4	229.1	229.1	230.4	234.4	234.4	235.7
58°	206.4	209.1	210.5	211.8	214.4	215.8	218.4	219.8	221.1	219.8
59°	194.4	195.8	197.1	197.1	199.8	199.8	203.7	206.4	207.8	207.8
60°	182.4	182.4	183.8	185.1	187.8	189.2	189.2	191.7	191.7	191.7
61°	170.5	170.5	171.8	173.1	174.5	174.5	177.2	177.2	178.5	179.8
62°	159.9	158.5	158.5	159.9	159.9	162.5	163.8	165.2	166.5	165.2
63°	147.9	146.5	146.5	146.5	146.5	149.2	149.2	150.5	153.1	151.8
64°	134.5	134.5	134.5	134.5	135.9	135.9	138.6	139.8	141.1	142.5
65°	125.2	122.5	121.2	121.2	122.5	123.9	125.2	126.6	127.9	127.9
66°	114.5	111.9	110.5	110.5	110.5	110.5	113.2	113.2	115.9	115.9
67°	102.5	99.9	98.5	97.3	97.3	97.3	101.2	99.9	99.9	99.9
67.5°	98.5	94.6	93.2	91.9	90.5	93.2	91.9	93.2	93.2	91.9
68°	93.2	90.5	88.0	85.3	85.3	85.3	86.6	88.0	86.6	85.3
69°	82.6	81.2	77.3	74.6	73.3	74.6	73.3	74.6	73.3	74.6
70°	73.3	69.2	65.3	63.9	62.6	62.6	62.6	61.3	62.6	61.3
71°	63.9	59.9	56.0	53.3	51.9	51.9	50.6	51.9	50.6	51.9
72°	54.6	50.6	45.3	42.6	42.6	42.6	42.6	41.3	42.6	41.3
72.5°	50.6	45.3	41.3	38.6	37.3	37.3	37.3	37.3	36.0	37.3
73°	46.7	41.3	36.0	34.7	34.7	34.7	33.3	32.0	33.3	33.3



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	15.9	12.0	10.7	10.7	10.7	10.7	10.7	10.7	9.3	9.3
80°	6.6	5.4	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
85°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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°	86.6	86.6	83.9	79.9	73.3	66.6	61.3	56.0	49.3	42.6	39.9
75°	79.9	78.5	76.0	71.9	66.6	59.9	54.6	47.9	42.6	36.0	33.3





74°	38.6	32.0	29.3	26.6	26.6	26.6	25.4	25.4	25.4	26.6
75°	30.6	25.4	22.7	20.0	21.3	20.0	21.3	20.0	20.0	20.0



(END OF REPORT)