

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: P583924

Luminaire Tested: **HC815D010-HM80520930-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583924
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: HC815D010-HM80520930-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1330.4 lumens
Efficiency: N/A
Efficacy: 95.0 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

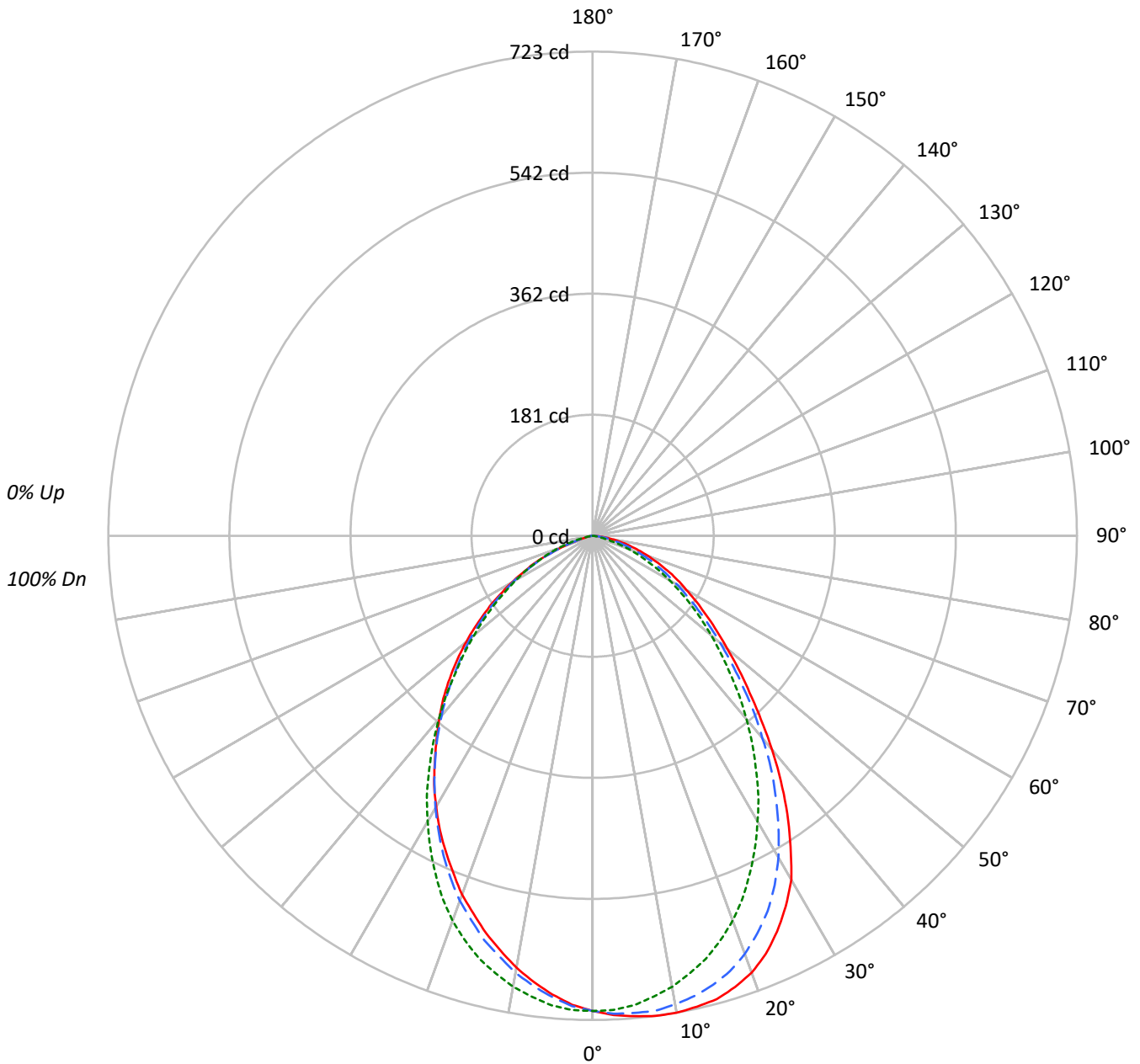
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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°	21881	21881	21881
5°	22293	21785	21284
10°	22642	21408	20503
15°	22870	20872	19614
20°	22780	20067	18711
25°	22180	18907	17665
30°	21125	17533	16639
35°	19074	15999	15453
40°	16758	14363	14322
45°	14465	12620	13170
50°	12598	11072	11811
55°	11166	9613	10290
60°	9966	8122	8542
65°	8975	6596	6735
70°	7970	4941	3985
75°	6875	2859	1728
80°	5292	1030	515
85°	3397	354	354



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	5.0
10°-20°	185.5	13.9
20°-30°	262.3	19.7
30°-40°	276.4	20.8
40°-50°	234.9	17.7
50°-60°	169.1	12.7
60°-70°	97.6	7.3
70°-80°	33.4	2.5
80°-90°	4.6	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°	514.4	38.7
0°-40°	790.8	59.4
0°-60°	1194.8	89.8
0°-90°	1330.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1330.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	710	710	710	710	710	
5°	720	715	704	691	688	69
15°	716	694	654	625	614	202
25°	652	618	556	527	519	299
35°	507	477	425	410	410	316
45°	332	316	289	291	302	258
55°	208	191	179	186	191	187
65°	123	106	90	88	92	122
75°	58	43	24	15	14	61
85°	10	6	1	1	1	13
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°	709.6	709.6	709.6	709.6	709.6	709.6	709.6	709.6	709.6	709.6	709.6
2.5°	716.4	717.3	716.4	716.4	715.4	714.4	713.5	712.5	710.6	708.7	708.7
5°	720.2	722.2	720.2	720.2	717.3	715.4	713.5	710.6	706.7	703.8	703.8
7.5°	723.1	723.1	723.1	720.2	718.3	715.4	710.6	705.8	700.9	696.1	694.2
10°	723.1	723.1	722.2	718.3	716.4	710.6	705.8	699.0	692.4	685.6	683.7
12.5°	720.2	721.2	719.3	715.4	710.6	703.8	697.1	688.5	680.8	673.1	669.3
15°	716.4	715.4	713.5	708.7	702.9	694.2	687.6	677.9	667.3	657.7	653.8
17.5°	706.7	706.7	703.8	699.0	691.4	681.8	671.2	660.6	649.0	638.5	633.7
20°	694.2	694.2	690.5	684.7	677.0	664.4	652.9	640.5	627.0	616.4	611.5
22.5°	676.0	677.0	672.1	665.4	656.7	642.4	630.8	615.4	601.9	589.5	585.6
25°	651.9	653.8	649.0	642.4	630.8	618.3	603.8	589.5	574.1	561.5	555.7
27.5°	624.1	625.0	620.2	613.5	601.9	588.5	574.1	558.6	544.3	530.8	525.0
30°	593.3	589.5	587.6	578.9	566.4	554.8	538.5	526.0	510.6	499.1	492.4
32.5°	550.1	551.9	546.2	539.5	529.8	516.3	502.8	488.5	474.0	465.4	460.6
35°	506.7	508.6	505.7	499.1	488.5	476.9	463.4	453.0	440.4	429.8	425.0
37.5°	461.5	461.5	459.6	455.7	448.1	437.5	424.0	413.4	403.0	394.3	391.4
40°	416.3	414.4	413.4	410.5	403.9	394.3	385.6	376.9	366.3	360.5	356.8
42.5°	372.1	372.1	370.2	367.3	360.5	355.8	347.2	337.5	329.8	324.0	324.0
45°	331.7	332.7	329.8	327.9	324.0	316.3	308.7	302.0	295.2	291.4	289.4
47.5°	296.2	296.2	293.3	291.4	287.5	280.8	274.0	268.2	263.4	260.6	259.7
50°	262.6	262.6	262.6	257.7	252.9	248.1	243.3	236.5	233.6	231.7	230.8
52.5°	233.6	232.7	232.7	228.8	224.0	218.2	213.5	207.7	204.8	202.9	203.9
55°	207.7	207.7	206.8	202.0	197.1	191.4	186.5	181.7	179.8	177.9	178.8
56°	197.1	197.1	196.2	192.3	186.5	181.7	175.9	171.1	168.2	169.2	169.2
57°	189.4	187.5	187.5	182.7	177.9	171.1	166.4	161.6	159.7	158.7	158.7
58°	179.8	178.8	177.9	173.0	168.2	162.6	157.7	152.9	150.0	150.0	149.1
59°	170.1	170.1	168.2	164.5	159.7	153.9	149.1	144.2	141.3	140.4	140.4
60°	161.6	162.6	159.7	155.8	152.0	145.2	139.4	135.6	132.7	131.7	131.7
61°	153.9	153.9	152.0	147.1	142.3	137.5	131.7	126.9	125.0	123.0	123.0
62°	147.1	145.2	144.2	139.4	134.6	128.8	124.0	119.3	116.4	114.5	115.4
63°	138.5	137.5	135.6	131.7	126.9	121.1	115.4	111.6	108.7	105.8	106.8
64°	131.7	130.7	127.9	124.0	119.3	113.5	107.7	103.9	101.9	99.1	98.1
65°	123.0	122.1	121.1	116.4	111.6	105.8	101.0	97.1	94.2	92.3	90.4
66°	115.4	116.4	114.5	110.6	104.8	100.0	93.3	89.4	87.5	84.6	82.7
67°	108.7	108.7	106.8	102.9	97.1	92.3	87.5	82.7	79.8	76.9	75.9
67.5°	104.8	104.8	102.9	98.1	94.2	88.4	83.6	79.8	75.9	74.0	72.1
68°	101.0	101.0	100.0	96.2	91.3	85.6	80.7	75.9	72.1	69.3	68.3
69°	94.2	95.2	93.3	89.4	84.6	78.8	74.0	70.3	66.4	63.5	61.6
70°	88.4	87.5	85.6	81.7	76.9	73.0	68.3	63.5	59.6	55.8	54.8
71°	80.7	80.7	78.8	75.9	71.2	66.4	61.6	57.7	53.9	49.0	48.1
72°	75.0	75.0	73.0	69.3	65.4	60.6	55.8	51.0	48.1	43.3	41.3
72.5°	71.2	72.1	70.3	66.4	62.5	56.8	52.9	49.0	44.2	40.4	38.4
73°	69.3	68.3	67.4	63.5	58.7	54.8	50.0	46.2	41.3	37.5	35.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	43.3	43.3	42.3	38.4	34.6	30.7	26.9	23.1	19.3	15.4	13.5
80°	29.8	30.7	28.8	26.9	24.0	20.2	16.4	13.5	9.6	7.7	5.8
82.5°	19.3	19.3	18.3	16.4	14.5	11.6	9.6	6.7	4.8	3.9	2.9
85°	9.6	10.6	9.6	8.7	6.7	5.8	4.8	2.9	1.9	1.0	1.0
87.5°	3.9	3.9	3.9	2.9	2.9	1.9	1.0	1.0	1.0	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	0.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	709.6	709.6	709.6	709.6	709.6	709.6	709.6	709.6	709.6	709.6
2.5°	706.7	706.7	704.8	703.8	702.9	701.9	700.9	700.0	700.0	700.9
5°	700.9	699.0	695.2	694.2	691.4	690.5	688.5	687.6	688.5	687.6
7.5°	692.4	688.5	683.7	681.8	677.9	676.0	673.1	673.1	671.2	672.1
10°	680.8	675.0	669.3	665.4	662.5	659.6	657.7	655.8	654.8	654.8
12.5°	666.4	659.6	653.8	648.0	643.3	641.4	637.6	637.6	635.6	634.7
15°	650.0	641.4	634.7	628.9	625.0	621.2	618.3	616.4	614.4	614.4
17.5°	628.9	621.2	614.4	607.7	601.9	599.0	596.2	593.3	593.3	591.4
20°	605.8	597.2	591.4	584.7	579.8	575.0	571.2	571.2	569.2	570.2
22.5°	579.8	569.2	563.5	558.6	553.8	550.1	546.2	546.2	545.3	544.3
25°	550.9	542.4	535.6	529.8	526.9	523.1	522.1	520.2	519.2	519.2
27.5°	520.2	513.5	504.8	502.0	498.1	496.2	496.2	495.3	493.3	494.3
30°	487.5	479.8	475.0	473.1	469.2	469.2	468.3	466.3	466.3	467.3
32.5°	455.7	448.1	444.3	443.3	439.5	439.5	438.5	439.5	439.5	440.4
35°	421.1	414.4	413.4	410.5	409.6	409.6	409.6	411.5	413.4	410.5
37.5°	388.5	383.7	380.8	379.8	380.8	380.8	381.7	384.6	383.7	382.7
40°	354.9	351.0	349.1	349.1	351.0	352.9	352.9	355.8	356.8	355.8
42.5°	321.1	318.2	318.2	319.2	321.1	322.1	325.0	327.9	328.8	329.8
45°	289.4	289.4	289.4	290.4	291.4	293.3	297.2	300.0	301.0	302.0
47.5°	258.7	257.7	260.6	261.6	264.4	265.3	268.2	272.1	273.1	274.0
50°	229.8	231.7	232.7	235.6	237.5	237.5	241.4	243.3	246.2	246.2
52.5°	202.9	205.8	206.8	209.7	210.6	211.6	213.5	216.3	218.2	218.2
55°	178.8	179.8	181.7	182.7	185.6	186.5	188.5	189.4	192.3	191.4
56°	168.2	170.1	171.1	173.0	175.0	175.9	177.9	178.8	180.8	181.7
57°	158.7	159.7	162.6	163.5	165.4	165.4	166.4	169.2	169.2	170.1
58°	149.1	151.0	152.0	152.9	154.8	155.8	157.7	158.7	159.7	158.7
59°	140.4	141.3	142.3	142.3	144.2	144.2	147.1	149.1	150.0	150.0
60°	131.7	131.7	132.7	133.6	135.6	136.5	136.5	138.5	138.5	138.5
61°	123.0	123.0	124.0	125.0	125.9	125.9	127.9	127.9	128.8	129.8
62°	115.4	114.5	114.5	115.4	115.4	117.4	118.3	119.3	120.1	119.3
63°	106.8	105.8	105.8	105.8	105.8	107.7	107.7	108.7	110.6	109.7
64°	97.1	97.1	97.1	97.1	98.1	98.1	100.0	101.0	101.9	102.9
65°	90.4	88.4	87.5	87.5	88.4	89.4	90.4	91.3	92.3	92.3
66°	82.7	80.7	79.8	79.8	79.8	79.8	81.7	81.7	83.6	83.6
67°	74.0	72.1	71.2	70.3	70.3	70.3	73.0	72.1	72.1	72.1
67.5°	71.2	68.3	67.4	66.4	65.4	67.4	66.4	67.4	67.4	66.4
68°	67.4	65.4	63.5	61.6	61.6	61.6	62.5	63.5	62.5	61.6
69°	59.6	58.7	55.8	53.9	52.9	53.9	52.9	53.9	52.9	53.9
70°	52.9	50.0	47.1	46.2	45.2	45.2	45.2	44.2	45.2	44.2
71°	46.2	43.3	40.4	38.4	37.5	37.5	36.5	37.5	36.5	37.5
72°	39.4	36.5	32.7	30.7	30.7	30.7	30.7	29.8	30.7	29.8
72.5°	36.5	32.7	29.8	27.8	26.9	26.9	26.9	26.9	25.9	26.9
73°	33.6	29.8	25.9	24.9	24.9	24.9	24.0	23.1	24.0	24.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	11.6	8.7	7.7	7.7	7.7	7.7	7.7	7.7	6.7	6.7
80°	4.8	3.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
82.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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°	62.5	62.5	60.6	57.7	52.9	48.1	44.2	40.4	35.5	30.7	28.8
75°	57.7	56.8	54.8	51.9	48.1	43.3	39.4	34.6	30.7	25.9	24.0





74°	27.8	23.1	21.2	19.3	19.3	19.3	18.3	18.3	18.3	19.3
75°	22.2	18.3	16.4	14.5	15.4	14.5	15.4	14.5	14.5	14.5



(END OF REPORT)