

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: P583907

Luminaire Tested: **HC815D010-HM80520927-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583907
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-HM80520927-81RWWH
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: 1201.2 lumens
Efficiency: N/A
Efficacy: 85.8 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

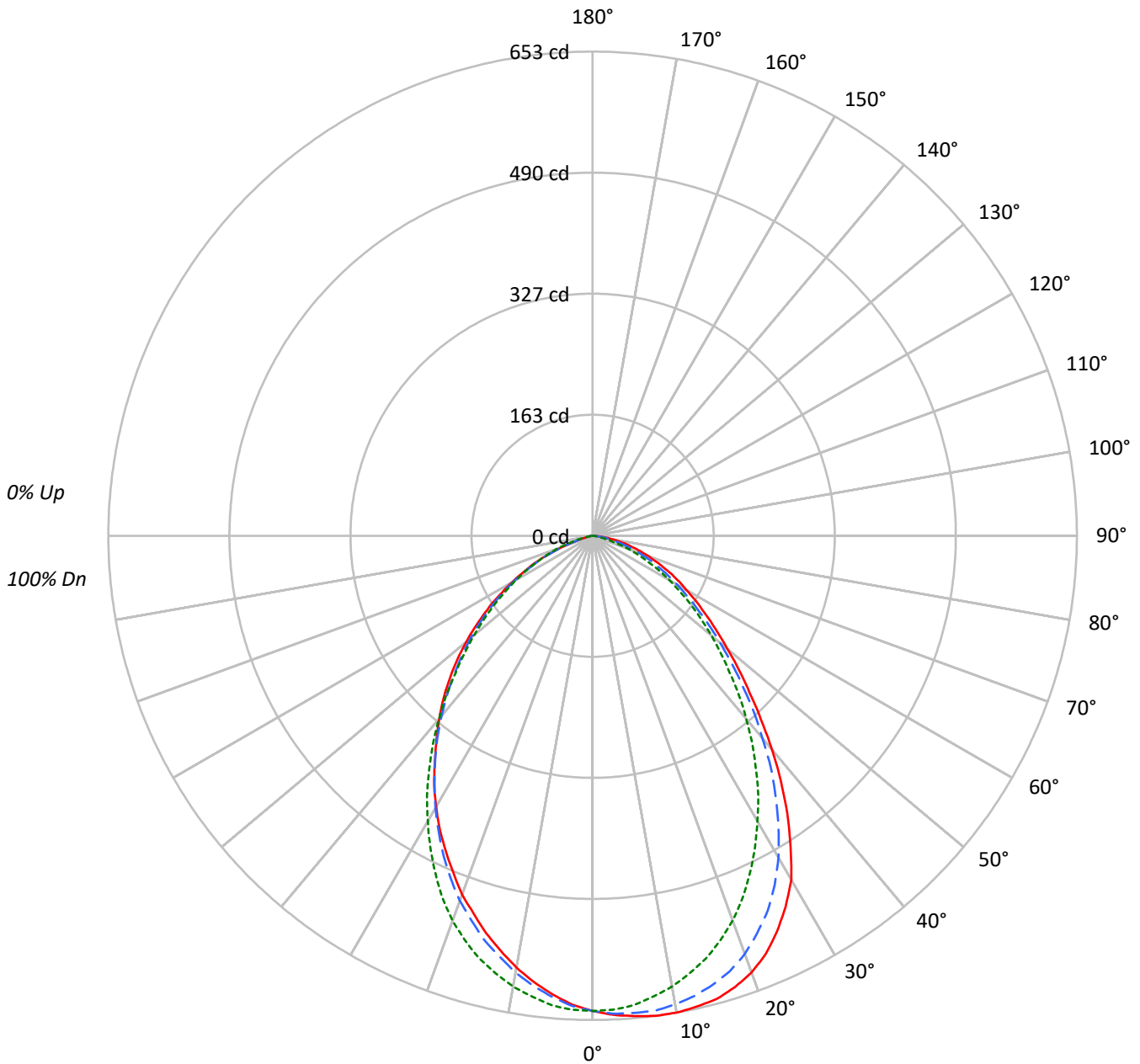
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	19760	19760	19760
5°	20129	19671	19216
10°	20447	19329	18515
15°	20649	18848	17711
20°	20569	18124	16897
25°	20027	17077	15954
30°	19075	15827	15026
35°	17222	14448	13958
40°	15135	12966	12934
45°	13065	11399	11892
50°	11370	9993	10664
55°	10080	8682	9290
60°	8998	7333	7715
65°	8106	5954	6085
70°	7204	4463	3597
75°	6207	2585	1549
80°	4777	923	479
85°	3078	283	283



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.2	5.0
10°-20°	167.5	13.9
20°-30°	236.8	19.7
30°-40°	249.6	20.8
40°-50°	212.1	17.7
50°-60°	152.7	12.7
60°-70°	88.1	7.3
70°-80°	30.1	2.5
80°-90°	4.1	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°	464.5	38.7
0°-40°	714.0	59.4
0°-60°	1078.9	89.8
0°-90°	1201.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1201.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	641	641	641	641	641	
5°	650	646	636	624	621	62
15°	647	627	590	564	555	182
25°	589	558	502	476	469	270
35°	458	431	384	370	371	285
45°	300	286	261	263	273	233
55°	188	173	162	168	173	169
65°	111	96	82	80	83	111
75°	52	39	22	14	13	55
85°	9	5	1	1	1	12
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°	640.8	640.8	640.8	640.8	640.8	640.8	640.8	640.8	640.8	640.8	640.8
2.5°	646.8	647.7	646.8	646.8	646.0	645.2	644.2	643.3	641.7	639.9	639.9
5°	650.3	652.0	650.3	650.3	647.7	646.0	644.2	641.7	638.2	635.5	635.5
7.5°	653.0	653.0	653.0	650.3	648.5	646.0	641.7	637.3	633.0	628.6	626.8
10°	653.0	653.0	652.0	648.5	646.8	641.7	637.3	631.2	625.2	619.1	617.3
12.5°	650.3	651.2	649.5	646.0	641.7	635.5	629.5	621.7	614.7	607.8	604.3
15°	646.8	646.0	644.2	639.9	634.7	626.8	620.8	612.1	602.6	593.9	590.4
17.5°	638.2	638.2	635.5	631.2	624.3	615.6	606.0	596.5	586.1	576.5	572.1
20°	626.8	626.8	623.5	618.2	611.3	600.0	589.6	578.3	566.1	556.6	552.3
22.5°	610.3	611.3	607.0	600.8	593.0	580.0	569.6	555.7	543.6	532.2	528.8
25°	588.6	590.4	586.1	580.0	569.6	558.3	545.3	532.2	518.4	507.1	501.9
27.5°	563.5	564.4	560.1	553.9	543.6	531.4	518.4	504.4	491.4	479.2	474.0
30°	535.7	532.2	530.6	522.7	511.4	501.0	486.2	474.9	461.0	450.7	444.5
32.5°	496.7	498.4	493.2	487.1	478.4	466.2	454.0	441.0	428.0	420.2	415.8
35°	457.5	459.3	456.7	450.7	441.0	430.7	418.5	409.0	397.7	388.1	383.8
37.5°	416.8	416.8	415.0	411.5	404.6	395.0	382.9	373.3	363.8	356.0	353.4
40°	376.0	374.3	373.3	370.8	364.6	356.0	348.1	340.4	330.8	325.6	322.1
42.5°	336.1	336.1	334.3	331.6	325.6	321.3	313.4	304.7	297.8	292.6	292.6
45°	299.6	300.4	297.8	296.1	292.6	285.7	278.7	272.7	266.5	263.1	261.4
47.5°	267.4	267.4	264.9	263.1	259.6	253.5	247.5	242.2	237.9	235.3	234.4
50°	237.0	237.0	237.0	232.7	228.3	224.0	219.7	213.6	211.0	209.3	208.3
52.5°	211.0	210.2	210.2	206.7	202.3	197.1	192.8	187.5	185.0	183.2	184.1
55°	187.5	187.5	186.7	182.3	178.0	172.8	168.5	164.1	162.3	160.6	161.5
56°	178.0	178.0	177.1	173.6	168.5	164.1	158.9	154.6	152.0	152.8	152.8
57°	171.0	169.3	169.3	165.0	160.6	154.6	150.3	145.9	144.1	143.3	143.3
58°	162.3	161.5	160.6	156.3	152.0	146.8	142.4	138.1	135.4	135.4	134.6
59°	153.6	153.6	152.0	148.5	144.1	138.9	134.6	130.3	127.6	126.8	126.8
60°	145.9	146.8	144.1	140.6	137.1	131.1	125.9	122.4	119.8	118.9	118.9
61°	138.9	138.9	137.1	132.8	128.5	124.1	118.9	114.6	112.9	111.1	111.1
62°	132.8	131.1	130.3	125.9	121.6	116.4	112.1	107.6	105.1	103.3	104.2
63°	125.1	124.1	122.4	118.9	114.6	109.4	104.2	100.7	98.1	95.6	96.4
64°	118.9	118.1	115.4	112.1	107.6	102.4	97.2	93.7	92.1	89.4	88.6
65°	111.1	110.3	109.4	105.1	100.7	95.6	91.2	87.7	85.1	83.4	81.6
66°	104.2	105.1	103.3	99.9	94.6	90.3	84.2	80.7	79.0	76.4	74.7
67°	98.1	98.1	96.4	92.9	87.7	83.4	79.0	74.7	72.1	69.4	68.6
67.5°	94.6	94.6	92.9	88.6	85.1	79.9	75.6	72.1	68.6	66.9	65.1
68°	91.2	91.2	90.3	86.9	82.5	77.2	72.9	68.6	65.1	62.5	61.7
69°	85.1	85.9	84.2	80.7	76.4	71.2	66.9	63.4	59.9	57.4	55.6
70°	79.9	79.0	77.2	73.7	69.4	66.0	61.7	57.4	53.9	50.4	49.5
71°	72.9	72.9	71.2	68.6	64.2	59.9	55.6	52.1	48.7	44.2	43.4
72°	67.7	67.7	66.0	62.5	59.0	54.7	50.4	46.0	43.4	39.0	37.4
72.5°	64.2	65.1	63.4	59.9	56.4	51.2	47.7	44.2	39.9	36.5	34.7
73°	62.5	61.7	60.7	57.4	53.0	49.5	45.2	41.7	37.4	33.9	32.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	39.0	39.0	38.2	34.7	31.2	27.8	24.3	20.8	17.4	13.9	12.2
80°	26.9	27.8	26.0	24.3	21.7	18.2	14.7	12.2	8.7	7.0	5.2
82.5°	17.4	17.4	16.5	14.7	13.0	10.4	8.7	6.0	4.3	3.5	2.7
85°	8.7	9.5	8.7	7.8	6.0	5.2	4.3	2.7	1.7	0.8	0.8
87.5°	3.5	3.5	3.5	2.7	2.7	1.7	0.8	0.8	0.8	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°	640.8	640.8	640.8	640.8	640.8	640.8	640.8	640.8	640.8	640.8
2.5°	638.2	638.2	636.5	635.5	634.7	633.8	633.0	632.1	632.1	633.0
5°	633.0	631.2	627.8	626.8	624.3	623.5	621.7	620.8	621.7	620.8
7.5°	625.2	621.7	617.3	615.6	612.1	610.3	607.8	607.8	606.0	607.0
10°	614.7	609.5	604.3	600.8	598.3	595.6	593.9	592.1	591.3	591.3
12.5°	601.7	595.6	590.4	585.1	580.8	579.1	575.6	575.6	573.9	573.1
15°	587.0	579.1	573.1	567.8	564.4	560.9	558.3	556.6	554.8	554.8
17.5°	567.8	560.9	554.8	548.8	543.6	540.9	538.3	535.7	535.7	533.9
20°	546.9	539.2	533.9	527.9	523.6	519.2	515.7	515.7	514.1	514.9
22.5°	523.6	514.1	508.8	504.4	500.1	496.7	493.2	493.2	492.4	491.4
25°	497.5	489.7	483.6	478.4	475.9	472.4	471.5	469.7	468.9	468.9
27.5°	469.7	463.7	455.9	453.2	449.7	448.0	448.0	447.2	445.4	446.3
30°	440.2	433.3	429.0	427.2	423.7	423.7	422.8	421.1	421.1	422.0
32.5°	411.5	404.6	401.1	400.3	396.8	396.8	396.0	396.8	396.8	397.7
35°	380.3	374.3	373.3	370.8	369.9	369.9	369.9	371.6	373.3	370.8
37.5°	350.8	346.4	343.8	342.9	343.8	343.8	344.8	347.3	346.4	345.6
40°	320.4	316.9	315.2	315.2	316.9	318.6	318.6	321.3	322.1	321.3
42.5°	290.0	287.4	287.4	288.2	290.0	290.9	293.4	296.1	296.9	297.8
45°	261.4	261.4	261.4	262.2	263.1	264.9	268.2	270.9	271.7	272.7
47.5°	233.5	232.7	235.3	236.2	238.8	239.7	242.2	245.7	246.5	247.5
50°	207.5	209.3	210.2	212.7	214.5	214.5	218.0	219.7	222.3	222.3
52.5°	183.2	185.8	186.7	189.3	190.1	191.0	192.8	195.3	197.1	197.1
55°	161.5	162.3	164.1	165.0	167.6	168.5	170.1	171.0	173.6	172.8
56°	152.0	153.6	154.6	156.3	158.0	158.9	160.6	161.5	163.3	164.1
57°	143.3	144.1	146.8	147.6	149.3	149.3	150.3	152.8	152.8	153.6
58°	134.6	136.3	137.1	138.1	139.8	140.6	142.4	143.3	144.1	143.3
59°	126.8	127.6	128.5	128.5	130.3	130.3	132.8	134.6	135.4	135.4
60°	118.9	118.9	119.8	120.7	122.4	123.3	123.3	125.1	125.1	125.1
61°	111.1	111.1	112.1	112.9	113.8	113.8	115.4	115.4	116.4	117.2
62°	104.2	103.3	103.3	104.2	104.2	105.9	106.8	107.6	108.6	107.6
63°	96.4	95.6	95.6	95.6	95.6	97.2	97.2	98.1	99.9	98.9
64°	87.7	87.7	87.7	87.7	88.6	88.6	90.3	91.2	92.1	92.9
65°	81.6	79.9	79.0	79.0	79.9	80.7	81.6	82.5	83.4	83.4
66°	74.7	72.9	72.1	72.1	72.1	72.1	73.7	73.7	75.6	75.6
67°	66.9	65.1	64.2	63.4	63.4	63.4	66.0	65.1	65.1	65.1
67.5°	64.2	61.7	60.7	59.9	59.0	60.7	59.9	60.7	60.7	59.9
68°	60.7	59.0	57.4	55.6	55.6	55.6	56.4	57.4	56.4	55.6
69°	53.9	53.0	50.4	48.7	47.7	48.7	47.7	48.7	47.7	48.7
70°	47.7	45.2	42.5	41.7	40.8	40.8	40.8	39.9	40.8	39.9
71°	41.7	39.0	36.5	34.7	33.9	33.9	33.0	33.9	33.0	33.9
72°	35.5	33.0	29.5	27.8	27.8	27.8	27.8	26.9	27.8	26.9
72.5°	33.0	29.5	26.9	25.2	24.3	24.3	24.3	24.3	23.5	24.3
73°	30.4	26.9	23.5	22.5	22.5	22.5	21.7	20.8	21.7	21.7



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	10.4	7.8	7.0	7.0	7.0	7.0	7.0	7.0	6.0	6.0
80°	4.3	3.5	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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°	56.4	56.4	54.7	52.1	47.7	43.4	39.9	36.5	32.2	27.8	26.0
75°	52.1	51.2	49.5	46.9	43.4	39.0	35.5	31.2	27.8	23.5	21.7





74°	25.2	20.8	19.2	17.4	17.4	17.4	16.5	16.5	16.5	17.4
75°	20.0	16.5	14.7	13.0	13.9	13.0	13.9	13.0	13.0	13.0



(END OF REPORT)