

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: P583839

Luminaire Tested: **HC815D010-HM80520827-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583839
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-HM80520827-81RWWH
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: 1479.5 lumens
Efficiency: N/A
Efficacy: 105.7 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

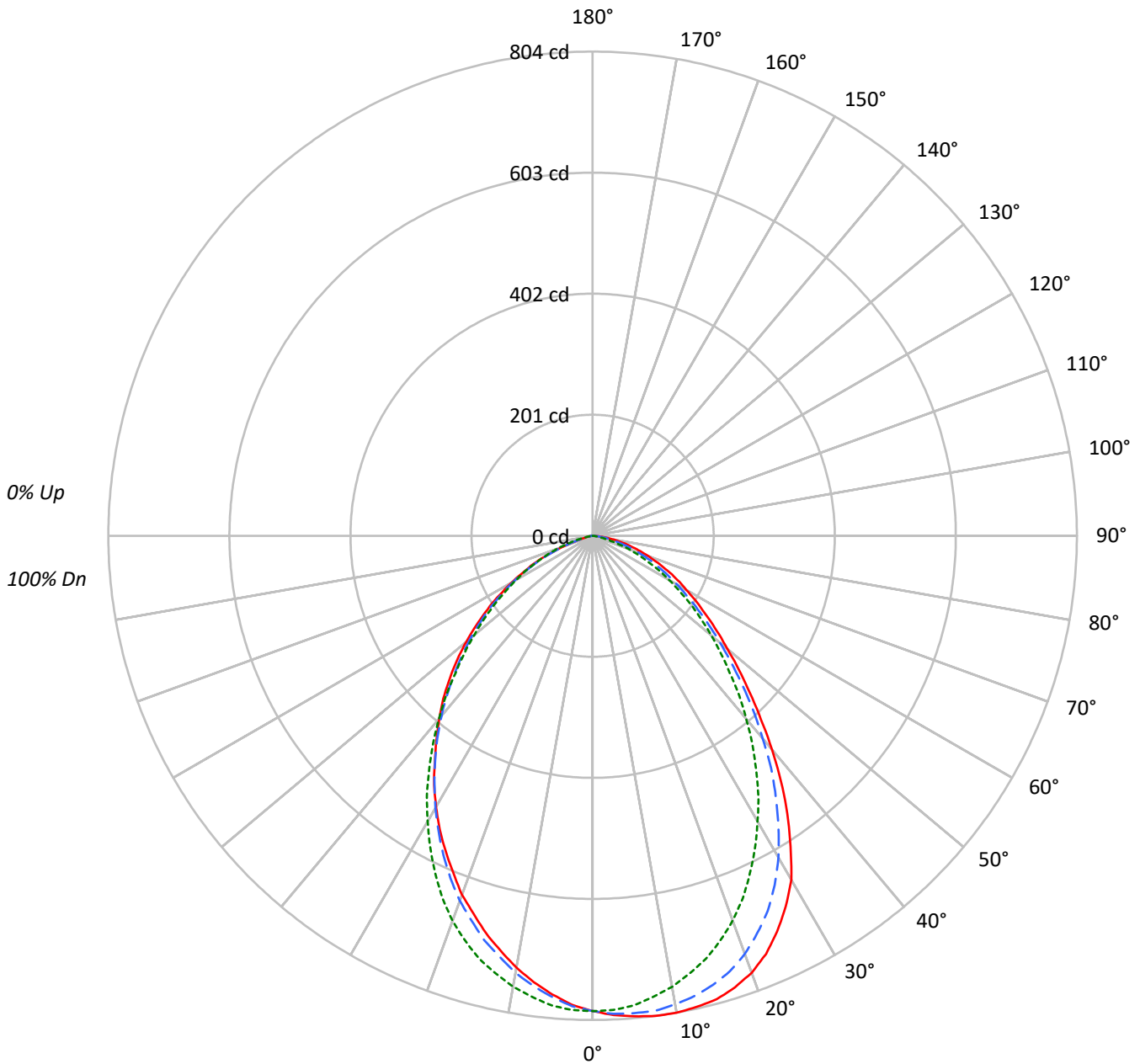
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
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°	24336	24336	24336
5°	24794	24231	23668
10°	25181	23810	22805
15°	25434	23215	21817
20°	25333	22318	20811
25°	24667	21034	19646
30°	23497	19498	18505
35°	21216	17794	17188
40°	18642	15969	15928
45°	16092	14038	14644
50°	14008	12315	13135
55°	12419	10693	11440
60°	11083	9035	9498
65°	9989	7333	7493
70°	8863	5500	4436
75°	7637	3193	1906
80°	5878	1137	586
85°	3786	389	389



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.1	5.0
10°-20°	206.2	13.9
20°-30°	291.7	19.7
30°-40°	307.4	20.8
40°-50°	261.2	17.7
50°-60°	188.1	12.7
60°-70°	108.5	7.3
70°-80°	37.1	2.5
80°-90°	5.1	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°	572.0	38.7
0°-40°	879.4	59.4
0°-60°	1328.8	89.8
0°-90°	1479.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1479.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	789	789	789	789	789	
5°	801	796	783	769	765	77
15°	797	772	727	695	683	224
25°	725	688	618	586	577	333
35°	564	530	473	456	457	351
45°	369	352	322	324	336	287
55°	231	213	199	206	213	208
65°	137	118	100	98	103	136
75°	64	48	27	17	16	68
85°	11	6	1	1	1	14
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°	789.2	789.2	789.2	789.2	789.2	789.2	789.2	789.2	789.2	789.2	789.2
2.5°	796.7	797.7	796.7	796.7	795.7	794.6	793.5	792.4	790.2	788.2	788.2
5°	801.0	803.1	801.0	801.0	797.7	795.7	793.5	790.2	786.0	782.8	782.8
7.5°	804.2	804.2	804.2	801.0	798.8	795.7	790.2	784.9	779.6	774.2	772.0
10°	804.2	804.2	803.1	798.8	796.7	790.2	784.9	777.5	770.0	762.5	760.4
12.5°	801.0	802.0	799.9	795.7	790.2	782.8	775.3	765.7	757.1	748.5	744.3
15°	796.7	795.7	793.5	788.2	781.7	772.0	764.6	754.0	742.2	731.4	727.2
17.5°	786.0	786.0	782.8	777.5	768.9	758.2	746.4	734.7	721.8	710.1	704.7
20°	772.0	772.0	767.8	761.4	752.9	738.9	726.1	712.2	697.2	685.5	680.1
22.5°	751.8	752.9	747.5	740.0	730.4	714.3	701.6	684.4	669.4	655.5	651.3
25°	725.0	727.2	721.8	714.3	701.6	687.6	671.5	655.5	638.4	624.6	618.2
27.5°	694.1	695.0	689.7	682.3	669.4	654.4	638.4	621.3	605.3	590.3	583.9
30°	659.9	655.5	653.4	643.7	629.9	617.1	598.9	584.9	567.8	555.0	547.6
32.5°	611.7	613.8	607.4	600.0	589.2	574.3	559.2	543.2	527.2	517.5	512.2
35°	563.6	565.7	562.5	555.0	543.2	530.4	515.5	503.7	489.8	478.0	472.7
37.5°	513.3	513.3	511.2	506.9	498.4	486.6	471.6	459.8	448.0	438.5	435.2
40°	463.1	460.9	459.8	456.6	449.1	438.5	428.9	419.2	407.4	401.0	396.7
42.5°	413.8	413.8	411.7	408.5	401.0	395.7	386.1	375.4	366.8	360.4	360.4
45°	369.0	370.1	366.8	364.6	360.4	351.9	343.3	335.8	328.2	324.0	321.9
47.5°	329.3	329.3	326.2	324.0	319.7	312.2	304.7	298.4	293.1	289.8	288.7
50°	292.0	292.0	292.0	286.5	281.2	275.9	270.5	263.1	259.9	257.7	256.7
52.5°	259.9	258.8	258.8	254.5	249.2	242.8	237.4	231.0	227.7	225.7	226.7
55°	231.0	231.0	229.9	224.6	219.2	212.8	207.5	202.1	200.0	197.9	198.9
56°	219.2	219.2	218.1	213.9	207.5	202.1	195.7	190.4	187.1	188.2	188.2
57°	210.6	208.6	208.6	203.2	197.9	190.4	185.0	179.7	177.5	176.4	176.4
58°	200.0	198.9	197.9	192.4	187.1	180.8	175.3	170.0	166.8	166.8	165.8
59°	189.3	189.3	187.1	182.9	177.5	171.1	165.8	160.4	157.3	156.2	156.2
60°	179.7	180.8	177.5	173.3	168.9	161.5	155.1	150.7	147.6	146.5	146.5
61°	171.1	171.1	168.9	163.6	158.2	152.9	146.5	141.1	139.1	136.9	136.9
62°	163.6	161.5	160.4	155.1	149.7	143.3	138.0	132.6	129.4	127.2	128.3
63°	154.0	152.9	150.7	146.5	141.1	134.7	128.3	124.0	120.9	117.6	118.7
64°	146.5	145.4	142.2	138.0	132.6	126.2	119.8	115.4	113.4	110.1	109.1
65°	136.9	135.8	134.7	129.4	124.0	117.6	112.3	108.0	104.8	102.7	100.5
66°	128.3	129.4	127.2	123.0	116.5	111.2	103.8	99.4	97.4	94.1	91.9
67°	120.9	120.9	118.7	114.5	108.0	102.7	97.4	91.9	88.8	85.6	84.5
67.5°	116.5	116.5	114.5	109.1	104.8	98.3	93.0	88.8	84.5	82.3	80.3
68°	112.3	112.3	111.2	106.9	101.6	95.2	89.8	84.5	80.3	77.0	75.9
69°	104.8	105.9	103.8	99.4	94.1	87.7	82.3	78.1	73.7	70.6	68.4
70°	98.3	97.4	95.2	90.9	85.6	81.2	75.9	70.6	66.3	62.1	61.0
71°	89.8	89.8	87.7	84.5	79.2	73.7	68.4	64.1	59.9	54.6	53.5
72°	83.4	83.4	81.2	77.0	72.7	67.4	62.1	56.6	53.5	48.1	46.0
72.5°	79.2	80.3	78.1	73.7	69.5	63.1	58.8	54.6	49.2	44.9	42.8
73°	77.0	75.9	74.8	70.6	65.2	61.0	55.6	51.3	46.0	41.7	39.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	48.1	48.1	47.0	42.8	38.4	34.2	29.9	25.7	21.3	17.1	14.9
80°	33.1	34.2	32.1	29.9	26.8	22.4	18.2	14.9	10.7	8.6	6.4
82.5°	21.3	21.3	20.4	18.2	16.0	12.8	10.7	7.5	5.3	4.2	3.3
85°	10.7	11.8	10.7	9.6	7.5	6.4	5.3	3.3	2.2	1.1	1.1
87.5°	4.2	4.2	4.2	3.3	3.3	2.2	1.1	1.1	1.1	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°	789.2	789.2	789.2	789.2	789.2	789.2	789.2	789.2	789.2	789.2
2.5°	786.0	786.0	783.9	782.8	781.7	780.6	779.6	778.6	778.6	779.6
5°	779.6	777.5	773.1	772.0	768.9	767.8	765.7	764.6	765.7	764.6
7.5°	770.0	765.7	760.4	758.2	754.0	751.8	748.5	748.5	746.4	747.5
10°	757.1	750.7	744.3	740.0	736.9	733.6	731.4	729.3	728.3	728.3
12.5°	741.1	733.6	727.2	720.7	715.4	713.2	709.0	709.0	706.9	705.8
15°	722.9	713.2	705.8	699.4	695.0	690.8	687.6	685.5	683.4	683.4
17.5°	699.4	690.8	683.4	675.9	669.4	666.2	663.0	659.9	659.9	657.7
20°	673.7	664.1	657.7	650.2	644.8	639.5	635.3	635.3	633.1	634.2
22.5°	644.8	633.1	626.7	621.3	616.0	611.7	607.4	607.4	606.4	605.3
25°	612.7	603.1	595.6	589.2	586.0	581.8	580.7	578.5	577.4	577.4
27.5°	578.5	571.0	561.4	558.3	553.9	551.8	551.8	550.7	548.6	549.7
30°	542.1	533.6	528.3	526.1	521.9	521.9	520.8	518.6	518.6	519.7
32.5°	506.9	498.4	494.0	493.0	488.7	488.7	487.7	488.7	488.7	489.8
35°	468.4	460.9	459.8	456.6	455.6	455.6	455.6	457.7	459.8	456.6
37.5°	432.0	426.7	423.4	422.4	423.4	423.4	424.5	427.8	426.7	425.6
40°	394.6	390.3	388.1	388.1	390.3	392.5	392.5	395.7	396.7	395.7
42.5°	357.2	353.9	353.9	355.0	357.2	358.2	361.5	364.6	365.7	366.8
45°	321.9	321.9	321.9	322.9	324.0	326.2	330.4	333.7	334.7	335.8
47.5°	287.6	286.5	289.8	290.9	294.1	295.1	298.4	302.7	303.7	304.7
50°	255.6	257.7	258.8	262.0	264.1	264.1	268.5	270.5	273.8	273.8
52.5°	225.7	228.8	229.9	233.2	234.3	235.2	237.4	240.6	242.8	242.8
55°	198.9	200.0	202.1	203.2	206.4	207.5	209.5	210.6	213.9	212.8
56°	187.1	189.3	190.4	192.4	194.6	195.7	197.9	198.9	201.0	202.1
57°	176.4	177.5	180.8	181.8	183.9	183.9	185.0	188.2	188.2	189.3
58°	165.8	167.9	168.9	170.0	172.2	173.3	175.3	176.4	177.5	176.4
59°	156.2	157.3	158.2	158.2	160.4	160.4	163.6	165.8	166.8	166.8
60°	146.5	146.5	147.6	148.7	150.7	151.8	151.8	154.0	154.0	154.0
61°	136.9	136.9	138.0	139.1	140.1	140.1	142.2	142.2	143.3	144.4
62°	128.3	127.2	127.2	128.3	128.3	130.5	131.6	132.6	133.6	132.6
63°	118.7	117.6	117.6	117.6	117.6	119.8	119.8	120.9	123.0	121.9
64°	108.0	108.0	108.0	108.0	109.1	109.1	111.2	112.3	113.4	114.5
65°	100.5	98.3	97.4	97.4	98.3	99.4	100.5	101.6	102.7	102.7
66°	91.9	89.8	88.8	88.8	88.8	88.8	90.9	90.9	93.0	93.0
67°	82.3	80.3	79.2	78.1	78.1	78.1	81.2	80.3	80.3	80.3
67.5°	79.2	75.9	74.8	73.7	72.7	74.8	73.7	74.8	74.8	73.7
68°	74.8	72.7	70.6	68.4	68.4	68.4	69.5	70.6	69.5	68.4
69°	66.3	65.2	62.1	59.9	58.8	59.9	58.8	59.9	58.8	59.9
70°	58.8	55.6	52.4	51.3	50.2	50.2	50.2	49.2	50.2	49.2
71°	51.3	48.1	44.9	42.8	41.7	41.7	40.6	41.7	40.6	41.7
72°	43.9	40.6	36.4	34.2	34.2	34.2	34.2	33.1	34.2	33.1
72.5°	40.6	36.4	33.1	31.0	29.9	29.9	29.9	29.9	28.9	29.9
73°	37.5	33.1	28.9	27.8	27.8	27.8	26.8	25.7	26.8	26.8



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	12.8	9.6	8.6	8.6	8.6	8.6	8.6	8.6	7.5	7.5
80°	5.3	4.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
82.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	69.5	69.5	67.4	64.1	58.8	53.5	49.2	44.9	39.5	34.2	32.1
75°	64.1	63.1	61.0	57.7	53.5	48.1	43.9	38.4	34.2	28.9	26.8





74°	31.0	25.7	23.5	21.3	21.3	21.3	20.4	20.4	20.4	21.3
75°	24.6	20.4	18.2	16.0	17.1	16.0	17.1	16.0	16.0	16.0



(END OF REPORT)