

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: P583567

Luminaire Tested: **HC807D010-HM80520827-81RWWH**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583567  
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: HC807D010-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: 866.2 lumens  
Efficiency: N/A  
Efficacy: 108.3 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

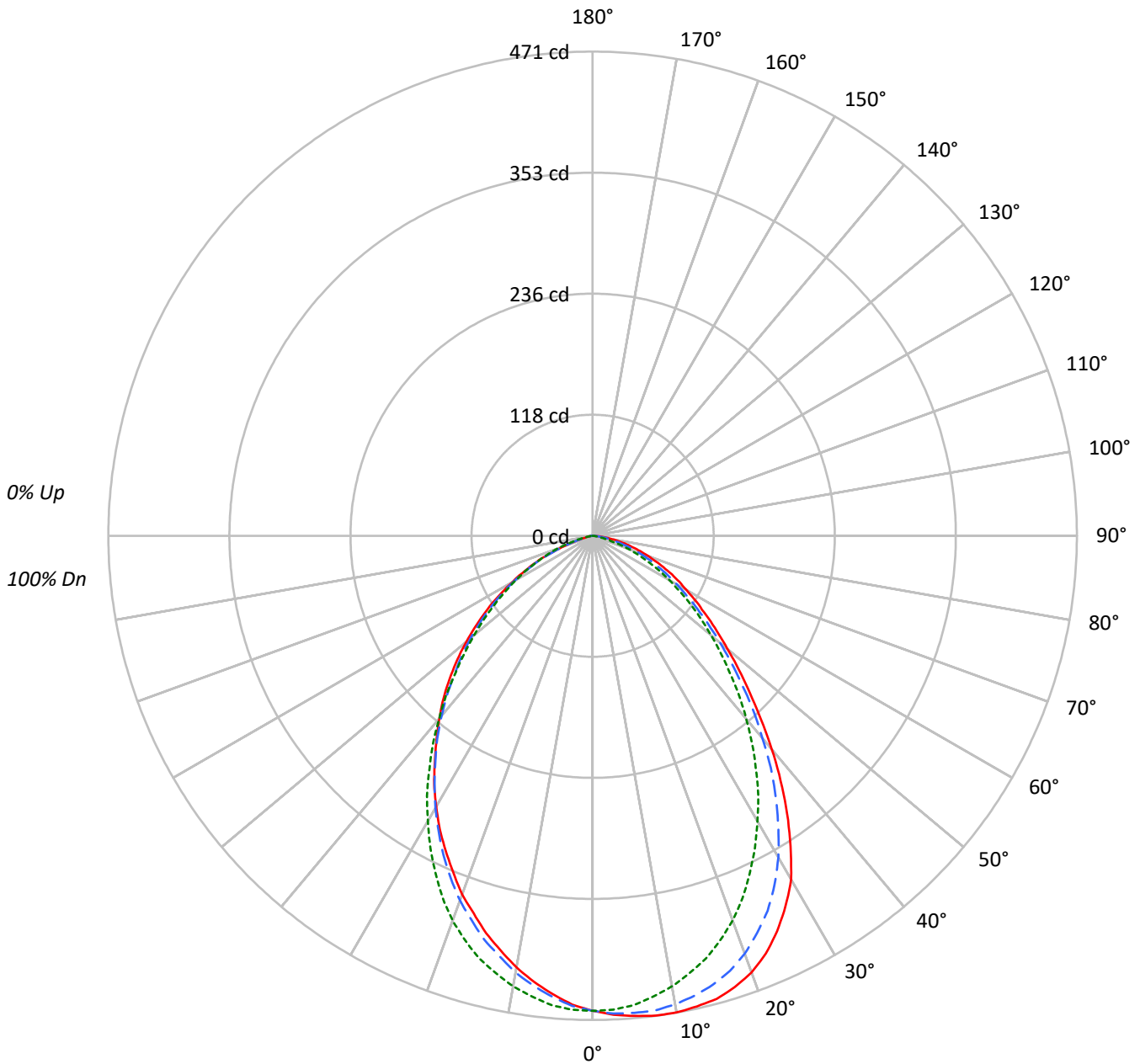
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
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°	14249	14249	14249
5°	14514	14186	13855
10°	14742	13937	13351
15°	14889	13593	12773
20°	14836	13067	12184
25°	14443	12310	11504
30°	13755	11412	10832
35°	12419	10420	10062
40°	10913	9351	9327
45°	9424	8220	8574
50°	8199	7206	7685
55°	7274	6258	6699
60°	6488	5292	5557
65°	5852	4290	4385
70°	5193	3219	2597
75°	4468	1871	1120
80°	3445	657	337
85°	2194	212	212



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.4	5.0
10°-20°	120.7	13.9
20°-30°	170.8	19.7
30°-40°	180.0	20.8
40°-50°	152.9	17.7
50°-60°	110.1	12.7
60°-70°	63.5	7.3
70°-80°	21.7	2.5
80°-90°	3.0	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°	334.9	38.7
0°-40°	514.9	59.4
0°-60°	777.9	89.8
0°-90°	866.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	866.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	462	462	462	462	462	
5°	469	466	458	450	448	45
15°	466	452	426	407	400	131
25°	424	403	362	343	338	195
35°	330	311	277	267	267	205
45°	216	206	188	190	197	168
55°	135	125	116	121	125	122
65°	80	69	59	58	60	80
75°	38	28	16	10	9	40
85°	6	4	1	1	1	8
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°	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1
2.5°	466.4	467.0	466.4	466.4	465.8	465.2	464.5	463.9	462.7	461.4	461.4
5°	468.9	470.2	468.9	468.9	467.0	465.8	464.5	462.7	460.2	458.3	458.3
7.5°	470.8	470.8	470.8	468.9	467.7	465.8	462.7	459.6	456.4	453.3	452.1
10°	470.8	470.8	470.2	467.7	466.4	462.7	459.6	455.2	450.8	446.5	445.1
12.5°	468.9	469.5	468.3	465.8	462.7	458.3	453.9	448.2	443.2	438.2	435.7
15°	466.4	465.8	464.5	461.4	457.7	452.1	447.6	441.4	434.5	428.3	425.8
17.5°	460.2	460.2	458.3	455.2	450.2	443.9	437.0	430.1	422.6	415.7	412.6
20°	452.1	452.1	449.6	445.7	440.7	432.6	425.1	416.9	408.2	401.3	398.2
22.5°	440.1	440.7	437.6	433.3	427.6	418.2	410.7	400.7	392.0	383.8	381.3
25°	424.5	425.8	422.6	418.2	410.7	402.6	393.2	383.8	373.8	365.7	361.8
27.5°	406.3	406.9	403.8	399.5	392.0	383.1	373.8	363.8	354.3	345.6	341.9
30°	386.3	383.8	382.5	376.9	368.8	361.2	350.6	342.5	332.4	324.9	320.5
32.5°	358.1	359.3	355.6	351.2	345.0	336.2	327.4	318.1	308.7	303.1	299.9
35°	329.9	331.3	329.3	324.9	318.1	310.6	301.7	294.9	286.8	279.9	276.8
37.5°	300.5	300.5	299.2	296.7	291.7	284.9	276.0	269.2	262.3	256.7	254.8
40°	271.1	269.8	269.2	267.3	262.9	256.7	251.1	245.5	238.5	234.8	232.3
42.5°	242.3	242.3	241.0	239.1	234.8	231.7	226.0	219.8	214.7	211.0	211.0
45°	216.1	216.7	214.7	213.5	211.0	206.0	201.0	196.6	192.2	189.6	188.5
47.5°	192.9	192.9	191.0	189.6	187.3	182.8	178.4	174.7	171.6	169.7	169.1
50°	170.9	170.9	170.9	167.8	164.7	161.6	158.5	154.0	152.1	150.9	150.2
52.5°	152.1	151.5	151.5	149.0	145.9	142.1	139.0	135.3	133.4	132.0	132.8
55°	135.3	135.3	134.6	131.5	128.3	124.6	121.4	118.3	117.1	115.8	116.4
56°	128.3	128.3	127.7	125.2	121.4	118.3	114.6	111.5	109.6	110.2	110.2
57°	123.3	122.1	122.1	118.9	115.8	111.5	108.3	105.2	104.0	103.2	103.2
58°	117.1	116.4	115.8	112.7	109.6	105.8	102.7	99.5	97.6	97.6	97.0
59°	110.8	110.8	109.6	107.1	104.0	100.1	97.0	93.9	92.0	91.4	91.4
60°	105.2	105.8	104.0	101.5	98.9	94.5	90.8	88.3	86.4	85.8	85.8
61°	100.1	100.1	98.9	95.8	92.6	89.5	85.8	82.7	81.4	80.2	80.2
62°	95.8	94.5	93.9	90.8	87.6	83.9	80.8	77.7	75.8	74.4	75.2
63°	90.1	89.5	88.3	85.8	82.7	78.9	75.2	72.7	70.7	68.8	69.5
64°	85.8	85.2	83.3	80.8	77.7	73.9	70.1	67.6	66.3	64.5	63.8
65°	80.2	79.5	78.9	75.8	72.7	68.8	65.7	63.2	61.3	60.1	58.8
66°	75.2	75.8	74.4	72.1	68.2	65.1	60.7	58.2	57.0	55.1	53.9
67°	70.7	70.7	69.5	67.0	63.2	60.1	57.0	53.9	52.0	50.1	49.5
67.5°	68.2	68.2	67.0	63.8	61.3	57.6	54.5	52.0	49.5	48.2	47.0
68°	65.7	65.7	65.1	62.6	59.5	55.7	52.6	49.5	47.0	45.1	44.5
69°	61.3	62.0	60.7	58.2	55.1	51.4	48.2	45.6	43.3	41.3	40.0
70°	57.6	57.0	55.7	53.2	50.1	47.6	44.5	41.3	38.8	36.3	35.7
71°	52.6	52.6	51.4	49.5	46.4	43.3	40.0	37.5	35.0	31.9	31.3
72°	48.9	48.9	47.6	45.1	42.5	39.4	36.3	33.2	31.3	28.2	26.9
72.5°	46.4	47.0	45.6	43.3	40.7	36.9	34.4	31.9	28.8	26.3	25.1
73°	45.1	44.5	43.9	41.3	38.2	35.7	32.5	30.0	26.9	24.4	23.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	28.2	28.2	27.6	25.1	22.6	20.1	17.6	15.1	12.5	10.0	8.7
80°	19.4	20.1	18.8	17.6	15.7	13.1	10.6	8.7	6.2	5.0	3.7
82.5°	12.5	12.5	12.0	10.6	9.4	7.5	6.2	4.4	3.1	2.5	1.9
85°	6.2	6.9	6.2	5.6	4.4	3.7	3.1	1.9	1.2	0.6	0.6
87.5°	2.5	2.5	2.5	1.9	1.9	1.2	0.6	0.6	0.6	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°	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1
2.5°	460.2	460.2	458.9	458.3	457.7	457.1	456.4	455.8	455.8	456.4
5°	456.4	455.2	452.7	452.1	450.2	449.6	448.2	447.6	448.2	447.6
7.5°	450.8	448.2	445.1	443.9	441.4	440.1	438.2	438.2	437.0	437.6
10°	443.2	439.5	435.7	433.3	431.4	429.5	428.3	427.0	426.4	426.4
12.5°	433.9	429.5	425.8	422.0	418.8	417.7	415.1	415.1	413.8	413.2
15°	423.3	417.7	413.2	409.4	406.9	404.5	402.6	401.3	400.1	400.1
17.5°	409.4	404.5	400.1	395.7	392.0	390.0	388.1	386.3	386.3	385.0
20°	394.5	388.9	385.0	380.6	377.5	374.4	371.9	371.9	370.7	371.3
22.5°	377.5	370.7	366.9	363.8	360.7	358.1	355.6	355.6	355.0	354.3
25°	358.7	353.1	348.7	345.0	343.1	340.6	340.0	338.7	338.1	338.1
27.5°	338.7	334.4	328.7	326.8	324.3	323.0	323.0	322.4	321.2	321.8
30°	317.4	312.4	309.3	308.1	305.6	305.6	304.8	303.6	303.6	304.2
32.5°	296.7	291.7	289.3	288.6	286.1	286.1	285.5	286.1	286.1	286.8
35°	274.3	269.8	269.2	267.3	266.7	266.7	266.7	267.9	269.2	267.3
37.5°	253.0	249.8	248.0	247.2	248.0	248.0	248.6	250.5	249.8	249.2
40°	231.0	228.5	227.3	227.3	228.5	229.8	229.8	231.7	232.3	231.7
42.5°	209.1	207.2	207.2	207.8	209.1	209.7	211.6	213.5	214.1	214.7
45°	188.5	188.5	188.5	189.0	189.6	191.0	193.5	195.4	196.0	196.6
47.5°	168.4	167.8	169.7	170.3	172.2	172.8	174.7	177.2	177.8	178.4
50°	149.6	150.9	151.5	153.4	154.6	154.6	157.1	158.5	160.2	160.2
52.5°	132.0	134.0	134.6	136.5	137.1	137.8	139.0	140.9	142.1	142.1
55°	116.4	117.1	118.3	118.9	120.8	121.4	122.7	123.3	125.2	124.6
56°	109.6	110.8	111.5	112.7	114.0	114.6	115.8	116.4	117.7	118.3
57°	103.2	104.0	105.8	106.5	107.7	107.7	108.3	110.2	110.2	110.8
58°	97.0	98.3	98.9	99.5	100.9	101.5	102.7	103.2	104.0	103.2
59°	91.4	92.0	92.6	92.6	93.9	93.9	95.8	97.0	97.6	97.6
60°	85.8	85.8	86.4	87.0	88.3	88.9	88.9	90.1	90.1	90.1
61°	80.2	80.2	80.8	81.4	82.0	82.0	83.3	83.3	83.9	84.5
62°	75.2	74.4	74.4	75.2	75.2	76.4	77.0	77.7	78.3	77.7
63°	69.5	68.8	68.8	68.8	68.8	70.1	70.1	70.7	72.1	71.3
64°	63.2	63.2	63.2	63.2	63.8	63.8	65.1	65.7	66.3	67.0
65°	58.8	57.6	57.0	57.0	57.6	58.2	58.8	59.5	60.1	60.1
66°	53.9	52.6	52.0	52.0	52.0	52.0	53.2	53.2	54.5	54.5
67°	48.2	47.0	46.4	45.6	45.6	45.6	47.6	47.0	47.0	47.0
67.5°	46.4	44.5	43.9	43.3	42.5	43.9	43.3	43.9	43.9	43.3
68°	43.9	42.5	41.3	40.0	40.0	40.0	40.7	41.3	40.7	40.0
69°	38.8	38.2	36.3	35.0	34.4	35.0	34.4	35.0	34.4	35.0
70°	34.4	32.5	30.7	30.0	29.4	29.4	29.4	28.8	29.4	28.8
71°	30.0	28.2	26.3	25.1	24.4	24.4	23.8	24.4	23.8	24.4
72°	25.7	23.8	21.3	20.1	20.1	20.1	20.1	19.4	20.1	19.4
72.5°	23.8	21.3	19.4	18.2	17.6	17.6	17.6	17.6	16.8	17.6
73°	21.9	19.4	16.8	16.3	16.3	16.3	15.7	15.1	15.7	15.7





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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	7.5	5.6	5.0	5.0	5.0	5.0	5.0	5.0	4.4	4.4
80°	3.1	2.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
82.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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°	40.7	40.7	39.4	37.5	34.4	31.3	28.8	26.3	23.2	20.1	18.8
75°	37.5	36.9	35.7	33.8	31.3	28.2	25.7	22.6	20.1	16.8	15.7







74°	18.2	15.1	13.7	12.5	12.5	12.5	12.0	12.0	12.0	12.5
75°	14.5	12.0	10.6	9.4	10.0	9.4	10.0	9.4	9.4	9.4



(END OF REPORT)