

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: P583669

Luminaire Tested: **HC807D010-HM80520935-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583669
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-HM80520935-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 822.6 lumens
Efficiency: N/A
Efficacy: 102.8 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

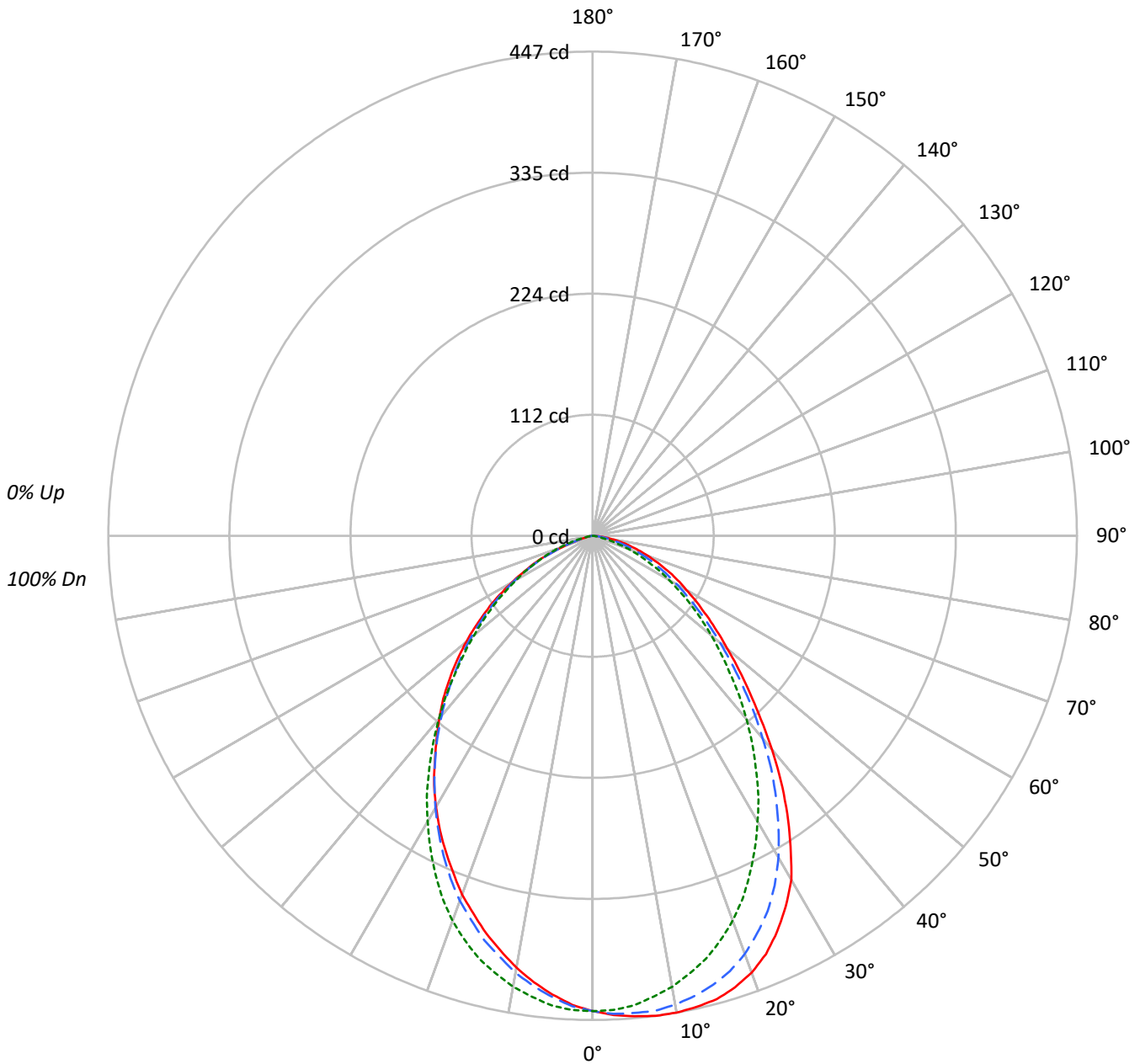
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	13531	13531	13531
5°	13784	13471	13159
10°	13996	13236	12678
15°	14139	12907	12128
20°	14084	12407	11567
25°	13715	11694	10925
30°	13064	10839	10290
35°	11794	9893	9554
40°	10361	8880	8856
45°	8944	7806	8142
50°	7786	6846	7301
55°	6908	5941	6360
60°	6161	5026	5279
65°	5553	4079	4166
70°	4932	3056	2470
75°	4253	1763	1072
80°	3267	639	320
85°	2123	212	212



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.2	5.0
10°-20°	114.7	13.9
20°-30°	162.2	19.7
30°-40°	170.9	20.8
40°-50°	145.2	17.7
50°-60°	104.6	12.7
60°-70°	60.3	7.3
70°-80°	20.7	2.5
80°-90°	2.9	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°	318.0	38.7
0°-40°	488.9	59.4
0°-60°	738.7	89.8
0°-90°	822.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	822.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	439	439	439	439	439	
5°	445	442	435	428	425	43
15°	443	429	404	386	380	125
25°	403	382	344	326	321	185
35°	313	295	263	253	254	195
45°	205	196	179	180	187	159
55°	128	118	110	115	118	116
65°	76	65	56	55	57	76
75°	36	27	15	10	9	38
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°	438.8	438.8	438.8	438.8	438.8	438.8	438.8	438.8	438.8	438.8	438.8
2.5°	442.9	443.5	442.9	442.9	442.3	441.8	441.2	440.6	439.4	438.2	438.2
5°	445.3	446.5	445.3	445.3	443.5	442.3	441.2	439.4	437.0	435.2	435.2
7.5°	447.0	447.0	447.0	445.3	444.1	442.3	439.4	436.4	433.4	430.4	429.2
10°	447.0	447.0	446.5	444.1	442.9	439.4	436.4	432.2	428.0	423.9	422.7
12.5°	445.3	445.9	444.7	442.3	439.4	435.2	431.0	425.7	420.9	416.2	413.8
15°	442.9	442.3	441.2	438.2	434.6	429.2	425.1	419.1	412.6	406.7	404.3
17.5°	437.0	437.0	435.2	432.2	427.5	421.5	415.0	408.5	401.3	394.7	391.8
20°	429.2	429.2	426.9	423.3	418.5	410.8	403.7	395.9	387.7	381.1	378.1
22.5°	418.0	418.5	415.6	411.4	406.1	397.1	390.0	380.5	372.1	364.5	362.1
25°	403.1	404.3	401.3	397.1	390.0	382.3	373.3	364.5	354.9	347.1	343.7
27.5°	385.9	386.5	383.5	379.3	372.1	363.9	354.9	345.5	336.5	328.1	324.6
30°	366.9	364.5	363.3	357.9	350.1	343.1	332.9	325.2	315.7	308.5	304.4
32.5°	340.1	341.3	337.7	333.5	327.5	319.3	310.9	302.0	293.1	287.8	284.8
35°	313.3	314.5	312.7	308.5	302.0	294.9	286.6	280.0	272.3	265.8	262.8
37.5°	285.4	285.4	284.2	281.8	277.0	270.5	262.2	255.6	249.2	243.8	242.0
40°	257.4	256.2	255.6	253.8	249.8	243.8	238.4	233.0	226.6	223.0	220.6
42.5°	230.0	230.0	228.8	227.0	223.0	220.0	214.6	208.6	203.9	200.4	200.4
45°	205.1	205.7	203.9	202.8	200.4	195.6	190.8	186.7	182.5	180.1	179.0
47.5°	183.1	183.1	181.3	180.1	177.8	173.6	169.5	165.9	162.9	161.1	160.5
50°	162.3	162.3	162.3	159.3	156.3	153.4	150.5	146.3	144.5	143.3	142.7
52.5°	144.5	143.9	143.9	141.5	138.5	134.9	131.9	128.5	126.7	125.5	126.1
55°	128.5	128.5	127.9	124.9	121.9	118.3	115.3	112.3	111.1	109.9	110.5
56°	121.9	121.9	121.3	118.9	115.3	112.3	108.7	105.9	104.1	104.7	104.7
57°	117.1	115.9	115.9	112.9	109.9	105.9	102.9	99.9	98.7	98.1	98.1
58°	111.1	110.5	109.9	107.1	104.1	100.5	97.5	94.5	92.7	92.7	92.1
59°	105.3	105.3	104.1	101.7	98.7	95.1	92.1	89.1	87.4	86.8	86.8
60°	99.9	100.5	98.7	96.3	93.9	89.7	86.2	83.8	82.1	81.5	81.5
61°	95.1	95.1	93.9	90.9	88.0	85.0	81.5	78.5	77.3	76.1	76.1
62°	90.9	89.7	89.1	86.2	83.3	79.7	76.7	73.7	71.9	70.7	71.3
63°	85.6	85.0	83.8	81.5	78.5	74.9	71.3	69.0	67.2	65.4	66.0
64°	81.5	80.9	79.1	76.7	73.7	70.1	66.6	64.2	63.0	61.2	60.6
65°	76.1	75.5	74.9	71.9	69.0	65.4	62.4	60.0	58.3	57.1	55.9
66°	71.3	71.9	70.7	68.4	64.8	61.8	57.7	55.3	54.1	52.3	51.1
67°	67.2	67.2	66.0	63.6	60.0	57.1	54.1	51.1	49.4	47.6	47.0
67.5°	64.8	64.8	63.6	60.6	58.3	54.7	51.7	49.4	47.0	45.8	44.6
68°	62.4	62.4	61.8	59.5	56.5	52.9	50.0	47.0	44.6	42.8	42.2
69°	58.3	58.9	57.7	55.3	52.3	48.8	45.8	43.4	41.0	39.2	38.0
70°	54.7	54.1	52.9	50.5	47.6	45.2	42.2	39.2	36.8	34.5	33.9
71°	50.0	50.0	48.8	47.0	44.0	41.0	38.0	35.7	33.3	30.4	29.8
72°	46.4	46.4	45.2	42.8	40.4	37.4	34.5	31.5	29.8	26.8	25.6
72.5°	44.0	44.6	43.4	41.0	38.6	35.1	32.7	30.4	27.4	25.0	23.8
73°	42.8	42.2	41.6	39.2	36.2	33.9	31.0	28.6	25.6	23.2	22.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	26.8	26.8	26.2	23.8	21.4	19.0	16.6	14.2	12.0	9.6	8.4
80°	18.4	19.0	17.8	16.6	14.8	12.4	10.2	8.4	6.0	4.8	3.6
82.5°	12.0	12.0	11.4	10.2	9.0	7.2	6.0	4.2	3.0	2.4	1.8
85°	6.0	6.6	6.0	5.4	4.2	3.6	3.0	1.8	1.2	0.6	0.6
87.5°	2.4	2.4	2.4	1.8	1.8	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°	438.8	438.8	438.8	438.8	438.8	438.8	438.8	438.8	438.8	438.8
2.5°	437.0	437.0	435.8	435.2	434.6	434.0	433.4	432.8	432.8	433.4
5°	433.4	432.2	429.8	429.2	427.5	426.9	425.7	425.1	425.7	425.1
7.5°	428.0	425.7	422.7	421.5	419.1	418.0	416.2	416.2	415.0	415.6
10°	420.9	417.4	413.8	411.4	409.6	407.9	406.7	405.5	404.9	404.9
12.5°	412.0	407.9	404.3	400.7	397.7	396.5	394.2	394.2	393.0	392.4
15°	401.9	396.5	392.4	388.9	386.5	384.1	382.3	381.1	379.9	379.9
17.5°	388.9	384.1	379.9	375.7	372.1	370.3	368.7	366.9	366.9	365.7
20°	374.5	369.3	365.7	361.5	358.5	355.5	353.1	353.1	351.9	352.5
22.5°	358.5	351.9	348.3	345.5	342.5	340.1	337.7	337.7	337.1	336.5
25°	340.7	335.3	331.1	327.5	325.8	323.4	322.8	321.7	321.1	321.1
27.5°	321.7	317.5	312.1	310.3	308.0	306.8	306.8	306.2	305.0	305.6
30°	301.4	296.7	293.7	292.5	290.1	290.1	289.5	288.4	288.4	289.0
32.5°	281.8	277.0	274.7	274.1	271.7	271.7	271.1	271.7	271.7	272.3
35°	260.4	256.2	255.6	253.8	253.2	253.2	253.2	254.4	255.6	253.8
37.5°	240.2	237.2	235.4	234.8	235.4	235.4	236.0	237.8	237.2	236.6
40°	219.4	217.0	215.8	215.8	217.0	218.2	218.2	220.0	220.6	220.0
42.5°	198.6	196.8	196.8	197.4	198.6	199.2	201.0	202.8	203.3	203.9
45°	179.0	179.0	179.0	179.5	180.1	181.3	183.7	185.5	186.1	186.7
47.5°	159.9	159.3	161.1	161.7	163.5	164.1	165.9	168.3	168.9	169.5
50°	142.1	143.3	143.9	145.7	146.9	146.9	149.3	150.5	152.2	152.2
52.5°	125.5	127.3	127.9	129.7	130.3	130.9	131.9	133.7	134.9	134.9
55°	110.5	111.1	112.3	112.9	114.7	115.3	116.5	117.1	118.9	118.3
56°	104.1	105.3	105.9	107.1	108.1	108.7	109.9	110.5	111.7	112.3
57°	98.1	98.7	100.5	101.1	102.3	102.3	102.9	104.7	104.7	105.3
58°	92.1	93.3	93.9	94.5	95.7	96.3	97.5	98.1	98.7	98.1
59°	86.8	87.4	88.0	88.0	89.1	89.1	90.9	92.1	92.7	92.7
60°	81.5	81.5	82.1	82.7	83.8	84.4	84.4	85.6	85.6	85.6
61°	76.1	76.1	76.7	77.3	77.9	77.9	79.1	79.1	79.7	80.3
62°	71.3	70.7	70.7	71.3	71.3	72.5	73.1	73.7	74.3	73.7
63°	66.0	65.4	65.4	65.4	65.4	66.6	66.6	67.2	68.4	67.8
64°	60.0	60.0	60.0	60.0	60.6	60.6	61.8	62.4	63.0	63.6
65°	55.9	54.7	54.1	54.1	54.7	55.3	55.9	56.5	57.1	57.1
66°	51.1	50.0	49.4	49.4	49.4	49.4	50.5	50.5	51.7	51.7
67°	45.8	44.6	44.0	43.4	43.4	43.4	45.2	44.6	44.6	44.6
67.5°	44.0	42.2	41.6	41.0	40.4	41.6	41.0	41.6	41.6	41.0
68°	41.6	40.4	39.2	38.0	38.0	38.0	38.6	39.2	38.6	38.0
69°	36.8	36.2	34.5	33.3	32.7	33.3	32.7	33.3	32.7	33.3
70°	32.7	31.0	29.2	28.6	28.0	28.0	28.0	27.4	28.0	27.4
71°	28.6	26.8	25.0	23.8	23.2	23.2	22.6	23.2	22.6	23.2
72°	24.4	22.6	20.2	19.0	19.0	19.0	19.0	18.4	19.0	18.4
72.5°	22.6	20.2	18.4	17.2	16.6	16.6	16.6	16.6	16.0	16.6
73°	20.8	18.4	16.0	15.4	15.4	15.4	14.8	14.2	14.8	14.8



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	7.2	5.4	4.8	4.8	4.8	4.8	4.8	4.8	4.2	4.2
80°	3.0	2.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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°	38.6	38.6	37.4	35.7	32.7	29.8	27.4	25.0	22.0	19.0	17.8
75°	35.7	35.1	33.9	32.1	29.8	26.8	24.4	21.4	19.0	16.0	14.8





74°	17.2	14.2	13.0	12.0	12.0	12.0	11.4	11.4	11.4	12.0
75°	13.6	11.4	10.2	9.0	9.6	9.0	9.6	9.0	9.0	9.0



(END OF REPORT)