

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: P593461

Luminaire Tested: **HC805D010-HM80520850-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P593461
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: HC805D010-HM80520850-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 729.8 lumens
Efficiency: N/A
Efficacy: 121.6 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

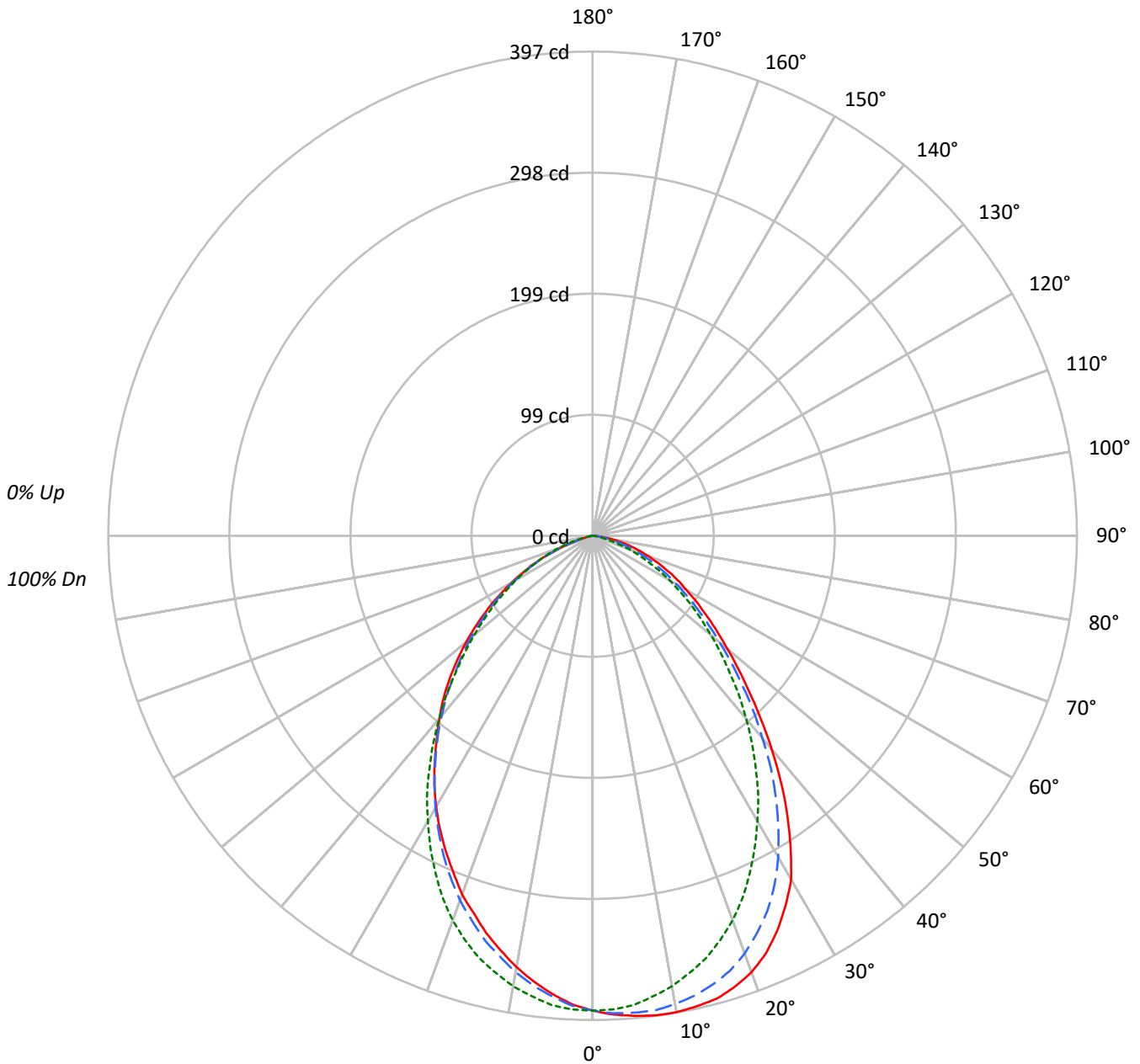
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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°	12005	12005	12005
5°	12230	11954	11676
10°	12421	11742	11247
15°	12546	11451	10762
20°	12499	11010	10265
25°	12170	10374	9693
30°	11590	9614	9130
35°	10461	8779	8481
40°	9194	7878	7858
45°	7933	6925	7226
50°	6908	6073	6476
55°	6129	5279	5645
60°	5464	4459	4687
65°	4925	3619	3692
70°	4373	2705	2191
75°	3765	1573	941
80°	2912	550	284
85°	1875	177	177



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.5	5.0
10°-20°	101.7	13.9
20°-30°	143.9	19.7
30°-40°	151.6	20.8
40°-50°	128.9	17.7
50°-60°	92.8	12.7
60°-70°	53.5	7.3
70°-80°	18.3	2.5
80°-90°	2.5	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°	282.2	38.7
0°-40°	433.8	59.4
0°-60°	655.5	89.8
0°-90°	729.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	729.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	389	389	389	389	389	
5°	395	392	386	379	377	38
15°	393	381	359	343	337	111
25°	358	339	305	289	285	164
35°	278	262	233	225	225	173
45°	182	174	159	160	166	141
55°	114	105	98	102	105	103
65°	68	58	50	48	51	67
75°	32	24	13	8	8	33
85°	5	3	0	0	0	7
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°	389.3	389.3	389.3	389.3	389.3	389.3	389.3	389.3	389.3	389.3	389.3
2.5°	393.0	393.6	393.0	393.0	392.5	391.9	391.4	390.9	389.9	388.8	388.8
5°	395.1	396.2	395.1	395.1	393.6	392.5	391.4	389.9	387.7	386.2	386.2
7.5°	396.7	396.7	396.7	395.1	394.1	392.5	389.9	387.2	384.6	382.0	380.9
10°	396.7	396.7	396.2	394.1	393.0	389.9	387.2	383.5	379.8	376.1	375.0
12.5°	395.1	395.6	394.5	392.5	389.9	386.2	382.4	377.7	373.5	369.3	367.1
15°	393.0	392.5	391.4	388.8	385.7	380.9	377.2	371.9	366.0	360.8	358.7
17.5°	387.7	387.7	386.2	383.5	379.3	374.1	368.2	362.5	356.1	350.2	347.6
20°	380.9	380.9	378.7	375.6	371.4	364.5	358.1	351.3	343.9	338.2	335.5
22.5°	370.8	371.4	368.7	365.1	360.3	352.4	346.1	337.6	330.3	323.3	321.3
25°	357.7	358.7	356.1	352.4	346.1	339.2	331.3	323.3	314.9	308.1	304.9
27.5°	342.3	342.9	340.3	336.6	330.3	322.8	314.9	306.4	298.5	291.2	288.0
30°	325.5	323.3	322.4	317.6	310.7	304.4	295.4	288.6	280.1	273.8	270.0
32.5°	301.8	302.8	299.6	295.9	290.6	283.3	275.9	268.0	260.1	255.3	252.7
35°	277.9	279.0	277.5	273.8	268.0	261.7	254.2	248.5	241.6	235.8	233.2
37.5°	253.2	253.2	252.2	250.1	245.9	240.0	232.6	226.8	221.1	216.3	214.7
40°	228.4	227.3	226.8	225.3	221.6	216.3	211.5	206.8	201.0	197.9	195.7
42.5°	204.2	204.2	203.1	201.5	197.9	195.2	190.4	185.2	181.0	177.8	177.8
45°	181.9	182.5	181.0	179.9	177.8	173.6	169.4	165.7	162.0	159.8	158.8
47.5°	162.4	162.4	160.9	159.8	157.8	154.1	150.3	147.2	144.6	142.9	142.4
50°	144.0	144.0	144.0	141.4	138.7	136.1	133.5	129.8	128.2	127.1	126.6
52.5°	128.2	127.6	127.6	125.6	122.9	119.7	117.1	114.0	112.4	111.3	111.8
55°	114.0	114.0	113.5	110.7	108.1	105.0	102.3	99.7	98.6	97.6	98.2
56°	108.1	108.1	107.6	105.5	102.3	99.7	96.5	93.8	92.3	92.9	92.9
57°	103.9	102.8	102.8	100.2	97.6	93.8	91.2	88.6	87.6	87.0	87.0
58°	98.6	98.2	97.6	94.9	92.3	89.2	86.5	83.9	82.2	82.2	81.8
59°	93.4	93.4	92.3	90.3	87.6	84.4	81.8	79.1	77.6	77.0	77.0
60°	88.6	89.2	87.6	85.5	83.3	79.6	76.5	74.3	72.8	72.3	72.3
61°	84.4	84.4	83.3	80.7	78.0	75.4	72.3	69.7	68.6	67.5	67.5
62°	80.7	79.6	79.1	76.5	73.9	70.7	68.1	65.4	63.8	62.7	63.3
63°	76.0	75.4	74.3	72.3	69.7	66.4	63.3	61.2	59.6	58.1	58.5
64°	72.3	71.7	70.1	68.1	65.4	62.2	59.1	57.0	55.9	54.3	53.9
65°	67.5	67.0	66.4	63.8	61.2	58.1	55.4	53.3	51.7	50.6	49.6
66°	63.3	63.8	62.7	60.7	57.5	54.8	51.1	49.1	48.0	46.4	45.4
67°	59.6	59.6	58.5	56.5	53.3	50.6	48.0	45.4	43.8	42.3	41.7
67.5°	57.5	57.5	56.5	53.9	51.7	48.5	45.8	43.8	41.7	40.6	39.6
68°	55.4	55.4	54.8	52.8	50.2	46.9	44.3	41.7	39.6	37.9	37.5
69°	51.7	52.2	51.1	49.1	46.4	43.2	40.6	38.5	36.4	34.8	33.8
70°	48.5	48.0	46.9	44.9	42.3	40.1	37.5	34.8	32.7	30.6	30.0
71°	44.3	44.3	43.2	41.7	39.0	36.4	33.8	31.6	29.6	26.9	26.3
72°	41.2	41.2	40.1	37.9	35.9	33.3	30.6	28.0	26.3	23.7	22.7
72.5°	39.0	39.6	38.5	36.4	34.2	31.1	29.0	26.9	24.3	22.1	21.1
73°	37.9	37.5	36.9	34.8	32.2	30.0	27.4	25.4	22.7	20.6	19.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	23.7	23.7	23.2	21.1	19.0	16.9	14.7	12.7	10.5	8.5	7.4
80°	16.4	16.9	15.8	14.7	13.2	11.1	9.0	7.4	5.3	4.2	3.1
82.5°	10.5	10.5	10.1	9.0	7.9	6.3	5.3	3.7	2.6	2.2	1.6
85°	5.3	5.7	5.3	4.8	3.7	3.1	2.6	1.6	1.1	0.5	0.5
87.5°	2.2	2.2	2.2	1.6	1.6	1.1	0.5	0.5	0.5	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°	389.3	389.3	389.3	389.3	389.3	389.3	389.3	389.3	389.3	389.3
2.5°	387.7	387.7	386.6	386.2	385.7	385.1	384.6	384.0	384.0	384.6
5°	384.6	383.5	381.4	380.9	379.3	378.7	377.7	377.2	377.7	377.2
7.5°	379.8	377.7	375.0	374.1	371.9	370.8	369.3	369.3	368.2	368.7
10°	373.5	370.4	367.1	365.1	363.4	361.9	360.8	359.8	359.2	359.2
12.5°	365.6	361.9	358.7	355.5	352.9	351.8	349.8	349.8	348.7	348.2
15°	356.6	351.8	348.2	345.0	342.9	340.8	339.2	338.2	337.1	337.1
17.5°	345.0	340.8	337.1	333.4	330.3	328.7	327.0	325.5	325.5	324.4
20°	332.3	327.6	324.4	320.7	318.0	315.4	313.4	313.4	312.3	312.8
22.5°	318.0	312.3	309.1	306.4	303.8	301.8	299.6	299.6	299.1	298.5
25°	302.2	297.6	293.9	290.6	289.1	286.9	286.4	285.4	284.9	284.9
27.5°	285.4	281.7	277.0	275.3	273.3	272.2	272.2	271.7	270.6	271.1
30°	267.4	263.2	260.6	259.5	257.5	257.5	256.9	255.8	255.8	256.4
32.5°	250.1	245.9	243.7	243.2	241.1	241.1	240.6	241.1	241.1	241.6
35°	231.0	227.3	226.8	225.3	224.7	224.7	224.7	225.8	226.8	225.3
37.5°	213.1	210.4	208.9	208.4	208.9	208.9	209.5	211.0	210.4	210.0
40°	194.6	192.6	191.5	191.5	192.6	193.6	193.6	195.2	195.7	195.2
42.5°	176.2	174.6	174.6	175.1	176.2	176.7	178.4	179.9	180.4	181.0
45°	158.8	158.8	158.8	159.3	159.8	160.9	163.0	164.6	165.1	165.7
47.5°	141.8	141.4	142.9	143.5	145.1	145.6	147.2	149.3	149.9	150.3
50°	126.0	127.1	127.6	129.3	130.4	130.4	132.4	133.5	135.0	135.0
52.5°	111.3	112.9	113.5	115.0	115.5	116.1	117.1	118.7	119.7	119.7
55°	98.2	98.6	99.7	100.2	101.9	102.3	103.4	103.9	105.5	105.0
56°	92.3	93.4	93.8	94.9	96.0	96.5	97.6	98.2	99.2	99.7
57°	87.0	87.6	89.2	89.7	90.7	90.7	91.2	92.9	92.9	93.4
58°	81.8	82.8	83.3	83.9	85.0	85.5	86.5	87.0	87.6	87.0
59°	77.0	77.6	78.0	78.0	79.1	79.1	80.7	81.8	82.2	82.2
60°	72.3	72.3	72.8	73.4	74.3	74.9	74.9	76.0	76.0	76.0
61°	67.5	67.5	68.1	68.6	69.1	69.1	70.1	70.1	70.7	71.2
62°	63.3	62.7	62.7	63.3	63.3	64.4	64.9	65.4	66.0	65.4
63°	58.5	58.1	58.1	58.1	58.1	59.1	59.1	59.6	60.7	60.1
64°	53.3	53.3	53.3	53.3	53.9	53.9	54.8	55.4	55.9	56.5
65°	49.6	48.5	48.0	48.0	48.5	49.1	49.6	50.2	50.6	50.6
66°	45.4	44.3	43.8	43.8	43.8	43.8	44.9	44.9	45.8	45.8
67°	40.6	39.6	39.0	38.5	38.5	38.5	40.1	39.6	39.6	39.6
67.5°	39.0	37.5	36.9	36.4	35.9	36.9	36.4	36.9	36.9	36.4
68°	36.9	35.9	34.8	33.8	33.8	33.8	34.2	34.8	34.2	33.8
69°	32.7	32.2	30.6	29.6	29.0	29.6	29.0	29.6	29.0	29.6
70°	29.0	27.4	25.9	25.4	24.8	24.8	24.8	24.3	24.8	24.3
71°	25.4	23.7	22.1	21.1	20.6	20.6	20.0	20.6	20.0	20.6
72°	21.7	20.0	18.0	16.9	16.9	16.9	16.9	16.4	16.9	16.4
72.5°	20.0	18.0	16.4	15.3	14.7	14.7	14.7	14.7	14.2	14.7
73°	18.4	16.4	14.2	13.8	13.8	13.8	13.2	12.7	13.2	13.2



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	6.3	4.8	4.2	4.2	4.2	4.2	4.2	4.2	3.7	3.7
80°	2.6	2.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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°	34.2	34.2	33.3	31.6	29.0	26.3	24.3	22.1	19.5	16.9	15.8
75°	31.6	31.1	30.0	28.5	26.3	23.7	21.7	19.0	16.9	14.2	13.2





74°	15.3	12.7	11.6	10.5	10.5	10.5	10.1	10.1	10.1	10.5
75°	12.1	10.1	9.0	7.9	8.5	7.9	8.5	7.9	7.9	7.9



(END OF REPORT)