

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: P583448

Luminaire Tested: **HC805D010-HM80520830-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583448
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-HM80520830-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 653.0 lumens
Efficiency: N/A
Efficacy: 108.8 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

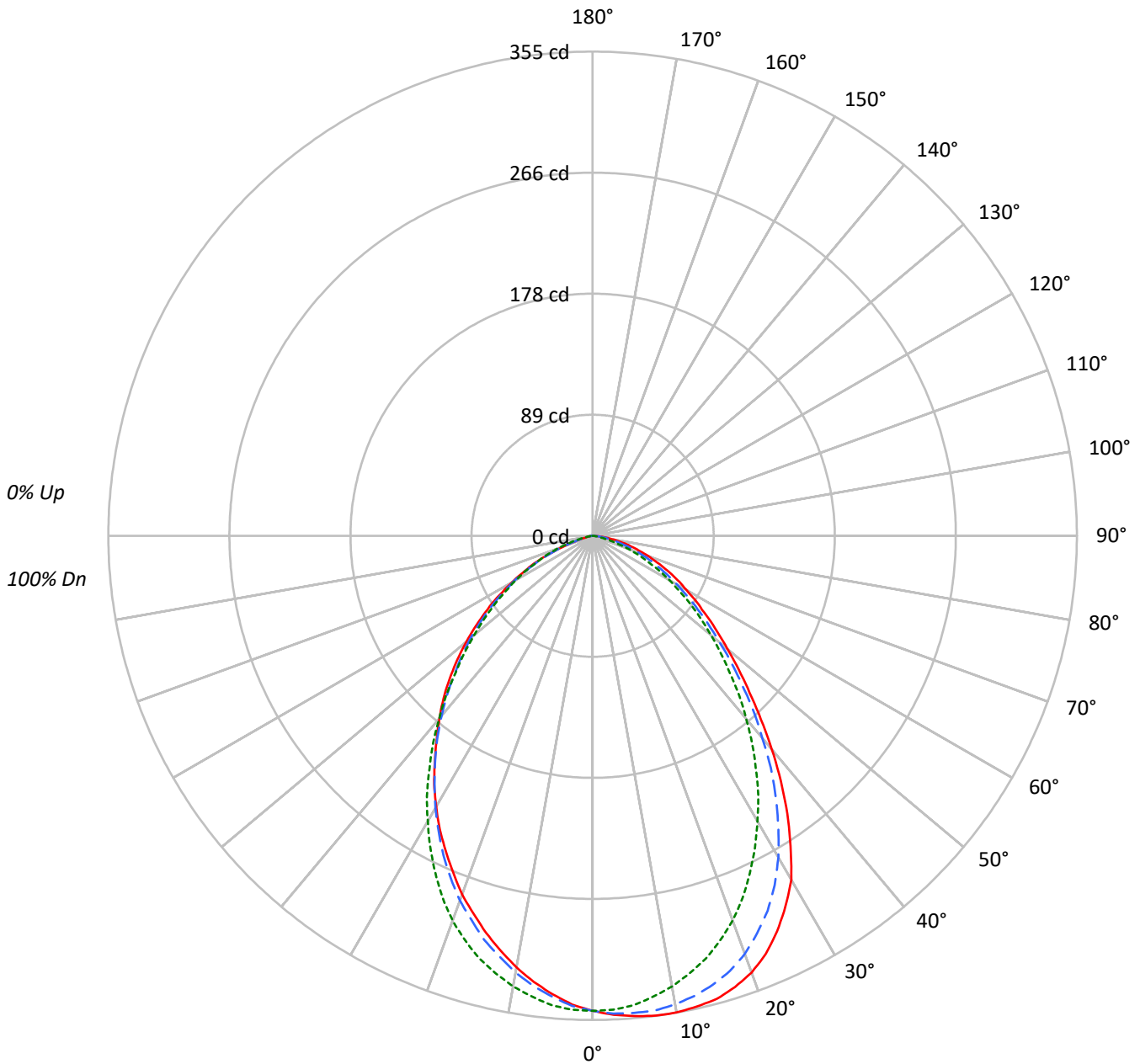
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P583448

CATALOG NUMBER: HC805D010-HM80520830-81RWWH

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°	10740	10740	10740
5°	10942	10695	10444
10°	11113	10505	10064
15°	11225	10244	9625
20°	11183	9851	9185
25°	10888	9282	8669
30°	10369	8606	8165
35°	9362	7853	7589
40°	8224	7048	7028
45°	7100	6197	6463
50°	6179	5431	5795
55°	5484	4715	5054
60°	4884	3984	4194
65°	4407	3240	3313
70°	3922	2425	1956
75°	3384	1418	846
80°	2593	515	249
85°	1663	177	177



TEST NUMBER: P583448

CATALOG NUMBER: HC805D010-HM80520830-81RWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.7	5.0
10°-20°	91.0	13.9
20°-30°	128.7	19.7
30°-40°	135.7	20.8
40°-50°	115.3	17.7
50°-60°	83.0	12.7
60°-70°	47.9	7.3
70°-80°	16.4	2.5
80°-90°	2.3	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°	252.5	38.7
0°-40°	388.1	59.4
0°-60°	586.4	89.8
0°-90°	653.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	653.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	348	348	348	348	348	
5°	354	351	346	339	337	34
15°	352	341	321	307	302	99
25°	320	303	273	259	255	147
35°	249	234	209	201	202	155
45°	163	155	142	143	148	126
55°	102	94	88	91	94	92
65°	60	52	44	44	45	60
75°	28	21	12	8	7	30
85°	5	3	0	0	0	6
90°	0	0	0	0	0	



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CATALOG NUMBER: HC805D010-HM80520830-81RWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	348.3	348.3	348.3	348.3	348.3	348.3	348.3	348.3	348.3	348.3	348.3
2.5°	351.6	352.0	351.6	351.6	351.1	350.7	350.2	349.8	348.8	347.8	347.8
5°	353.5	354.4	353.5	353.5	352.0	351.1	350.2	348.8	346.9	345.5	345.5
7.5°	354.9	354.9	354.9	353.5	352.5	351.1	348.8	346.4	344.0	341.7	340.8
10°	354.9	354.9	354.4	352.5	351.6	348.8	346.4	343.1	339.8	336.5	335.5
12.5°	353.5	354.0	353.0	351.1	348.8	345.5	342.2	337.9	334.2	330.4	328.5
15°	351.6	351.1	350.2	347.8	345.0	340.8	337.4	332.8	327.5	322.8	320.9
17.5°	346.9	346.9	345.5	343.1	339.3	334.6	329.4	324.3	318.5	313.4	311.0
20°	340.8	340.8	338.9	336.0	332.3	326.2	320.4	314.3	307.7	302.5	300.2
22.5°	331.8	332.3	329.9	326.5	322.4	315.3	309.7	302.0	295.4	289.3	287.4
25°	320.0	320.9	318.5	315.3	309.7	303.4	296.4	289.3	281.8	275.7	272.8
27.5°	306.3	306.8	304.4	301.2	295.4	288.8	281.8	274.2	267.2	260.5	257.7
30°	291.2	289.3	288.4	284.2	277.9	272.3	264.3	258.2	250.7	244.9	241.7
32.5°	269.9	270.9	268.1	264.8	260.1	253.4	246.8	239.8	232.7	228.4	226.1
35°	248.7	249.7	248.3	244.9	239.8	234.1	227.4	222.3	216.2	210.9	208.6
37.5°	226.6	226.6	225.6	223.7	219.9	214.7	208.2	202.9	197.7	193.6	192.1
40°	204.3	203.4	202.9	201.6	198.2	193.6	189.2	185.1	179.8	177.0	175.1
42.5°	182.7	182.7	181.7	180.3	177.0	174.6	170.3	165.7	161.8	159.1	159.1
45°	162.8	163.3	161.8	161.0	159.1	155.3	151.5	148.2	144.8	143.0	142.1
47.5°	145.3	145.3	144.0	143.0	141.1	137.8	134.5	131.7	129.3	128.0	127.5
50°	128.8	128.8	128.8	126.5	124.1	121.7	119.5	116.1	114.7	113.7	113.2
52.5°	114.7	114.2	114.2	112.3	110.0	107.1	104.7	102.0	100.5	99.6	100.1
55°	102.0	102.0	101.5	99.1	96.7	94.0	91.6	89.2	88.2	87.3	87.7
56°	96.7	96.7	96.2	94.4	91.6	89.2	86.4	84.0	82.6	83.1	83.1
57°	93.0	92.0	92.0	89.7	87.3	84.0	81.6	79.2	78.4	77.9	77.9
58°	88.2	87.7	87.3	85.0	82.6	79.7	77.4	75.1	73.6	73.6	73.1
59°	83.6	83.6	82.6	80.7	78.4	75.5	73.1	70.7	69.4	68.9	68.9
60°	79.2	79.7	78.4	76.5	74.6	71.2	68.5	66.6	65.1	64.6	64.6
61°	75.5	75.5	74.6	72.2	69.9	67.5	64.6	62.2	61.4	60.4	60.4
62°	72.2	71.2	70.7	68.5	66.1	63.2	60.9	58.5	57.1	56.1	56.6
63°	68.0	67.5	66.6	64.6	62.2	59.5	56.6	54.7	53.4	51.9	52.4
64°	64.6	64.2	62.7	60.9	58.5	55.7	52.9	51.0	50.0	48.6	48.1
65°	60.4	60.0	59.5	57.1	54.7	51.9	49.6	47.6	46.2	45.4	44.4
66°	56.6	57.1	56.1	54.2	51.5	49.1	45.7	43.9	43.0	41.5	40.6
67°	53.4	53.4	52.4	50.5	47.6	45.4	43.0	40.6	39.1	37.7	37.2
67.5°	51.5	51.5	50.5	48.1	46.2	43.5	41.1	39.1	37.2	36.4	35.4
68°	49.6	49.6	49.1	47.2	44.9	42.0	39.6	37.2	35.4	34.0	33.5
69°	46.2	46.7	45.7	43.9	41.5	38.7	36.4	34.5	32.6	31.1	30.2
70°	43.5	43.0	42.0	40.1	37.7	35.9	33.5	31.1	29.2	27.4	26.9
71°	39.6	39.6	38.7	37.2	35.0	32.6	30.2	28.4	26.5	24.1	23.6
72°	36.9	36.9	35.9	34.0	32.1	29.7	27.4	25.0	23.6	21.2	20.3
72.5°	35.0	35.4	34.5	32.6	30.6	27.9	26.0	24.1	21.7	19.9	18.9
73°	34.0	33.5	33.0	31.1	28.8	26.9	24.5	22.6	20.3	18.4	17.5



TEST NUMBER: P583448

CATALOG NUMBER: HC805D010-HM80520830-81RWWH

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	21.2	21.2	20.7	18.9	17.0	15.1	13.2	11.4	9.5	7.5	6.6
80°	14.6	15.1	14.1	13.2	11.9	9.9	8.0	6.6	4.7	3.8	2.9
82.5°	9.5	9.5	9.0	8.0	7.1	5.6	4.7	3.4	2.4	1.9	1.4
85°	4.7	5.1	4.7	4.2	3.4	2.9	2.4	1.4	1.0	0.5	0.5
87.5°	1.9	1.9	1.9	1.4	1.4	1.0	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°	348.3	348.3	348.3	348.3	348.3	348.3	348.3	348.3	348.3	348.3
2.5°	346.9	346.9	345.9	345.5	345.0	344.5	344.0	343.5	343.5	344.0
5°	344.0	343.1	341.3	340.8	339.3	338.9	337.9	337.4	337.9	337.4
7.5°	339.8	337.9	335.5	334.6	332.8	331.8	330.4	330.4	329.4	329.9
10°	334.2	331.3	328.5	326.5	325.2	323.8	322.8	321.9	321.4	321.4
12.5°	327.0	323.8	320.9	318.0	315.8	314.8	312.9	312.9	311.9	311.5
15°	319.0	314.8	311.5	308.7	306.8	304.9	303.4	302.5	301.5	301.5
17.5°	308.7	304.9	301.5	298.3	295.4	294.0	292.7	291.2	291.2	290.3
20°	297.3	293.1	290.3	286.9	284.6	282.3	280.3	280.3	279.4	279.9
22.5°	284.6	279.4	276.6	274.2	271.8	269.9	268.1	268.1	267.6	267.2
25°	270.4	266.2	262.9	260.1	258.7	256.8	256.3	255.3	254.8	254.8
27.5°	255.3	252.0	247.8	246.3	244.4	243.6	243.6	243.1	242.2	242.6
30°	239.3	235.4	233.2	232.2	230.3	230.3	229.8	228.9	228.9	229.3
32.5°	223.7	219.9	218.1	217.6	215.7	215.7	215.2	215.7	215.7	216.2
35°	206.7	203.4	202.9	201.6	201.1	201.1	201.1	202.1	202.9	201.6
37.5°	190.7	188.3	186.9	186.4	186.9	186.9	187.3	188.8	188.3	187.8
40°	174.2	172.2	171.3	171.3	172.2	173.2	173.2	174.6	175.1	174.6
42.5°	157.6	156.2	156.2	156.7	157.6	158.1	159.6	161.0	161.4	161.8
45°	142.1	142.1	142.1	142.6	143.0	144.0	145.8	147.2	147.7	148.2
47.5°	127.0	126.5	128.0	128.3	129.8	130.2	131.7	133.6	134.1	134.5
50°	112.8	113.7	114.2	115.6	116.6	116.6	118.5	119.5	120.8	120.8
52.5°	99.6	101.0	101.5	102.9	103.3	103.8	104.7	106.2	107.1	107.1
55°	87.7	88.2	89.2	89.7	91.1	91.6	92.5	93.0	94.4	94.0
56°	82.6	83.6	84.0	85.0	85.9	86.4	87.3	87.7	88.7	89.2
57°	77.9	78.4	79.7	80.2	81.2	81.2	81.6	83.1	83.1	83.6
58°	73.1	74.1	74.6	75.1	76.0	76.5	77.4	77.9	78.4	77.9
59°	68.9	69.4	69.9	69.9	70.7	70.7	72.2	73.1	73.6	73.6
60°	64.6	64.6	65.1	65.6	66.6	67.0	67.0	68.0	68.0	68.0
61°	60.4	60.4	60.9	61.4	61.9	61.9	62.7	62.7	63.2	63.7
62°	56.6	56.1	56.1	56.6	56.6	57.6	58.1	58.5	59.0	58.5
63°	52.4	51.9	51.9	51.9	51.9	52.9	52.9	53.4	54.2	53.7
64°	47.6	47.6	47.6	47.6	48.1	48.1	49.1	49.6	50.0	50.5
65°	44.4	43.5	43.0	43.0	43.5	43.9	44.4	44.9	45.4	45.4
66°	40.6	39.6	39.1	39.1	39.1	39.1	40.1	40.1	41.1	41.1
67°	36.4	35.4	35.0	34.5	34.5	34.5	35.9	35.4	35.4	35.4
67.5°	35.0	33.5	33.0	32.6	32.1	33.0	32.6	33.0	33.0	32.6
68°	33.0	32.1	31.1	30.2	30.2	30.2	30.6	31.1	30.6	30.2
69°	29.2	28.8	27.4	26.5	26.0	26.5	26.0	26.5	26.0	26.5
70°	26.0	24.5	23.1	22.6	22.1	22.1	22.1	21.7	22.1	21.7
71°	22.6	21.2	19.9	18.9	18.4	18.4	18.0	18.4	18.0	18.4
72°	19.4	18.0	16.0	15.1	15.1	15.1	15.1	14.6	15.1	14.6
72.5°	18.0	16.0	14.6	13.6	13.2	13.2	13.2	13.2	12.7	13.2
73°	16.5	14.6	12.7	12.3	12.3	12.3	11.9	11.4	11.9	11.9



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	5.6	4.2	3.8	3.8	3.8	3.8	3.8	3.8	3.4	3.4
80°	2.4	1.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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°	30.6	30.6	29.7	28.4	26.0	23.6	21.7	19.9	17.5	15.1	14.1
75°	28.4	27.9	26.9	25.5	23.6	21.2	19.4	17.0	15.1	12.7	11.9





74°	13.6	11.4	10.4	9.5	9.5	9.5	9.0	9.0	9.0	9.5
75°	10.9	9.0	8.0	7.1	7.5	7.1	7.5	7.1	7.1	7.1



(END OF REPORT)