

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: P592563

Luminaire Tested: **HC405D010-HM40525950-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592563
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC405D010-HM40525950-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 503.6 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

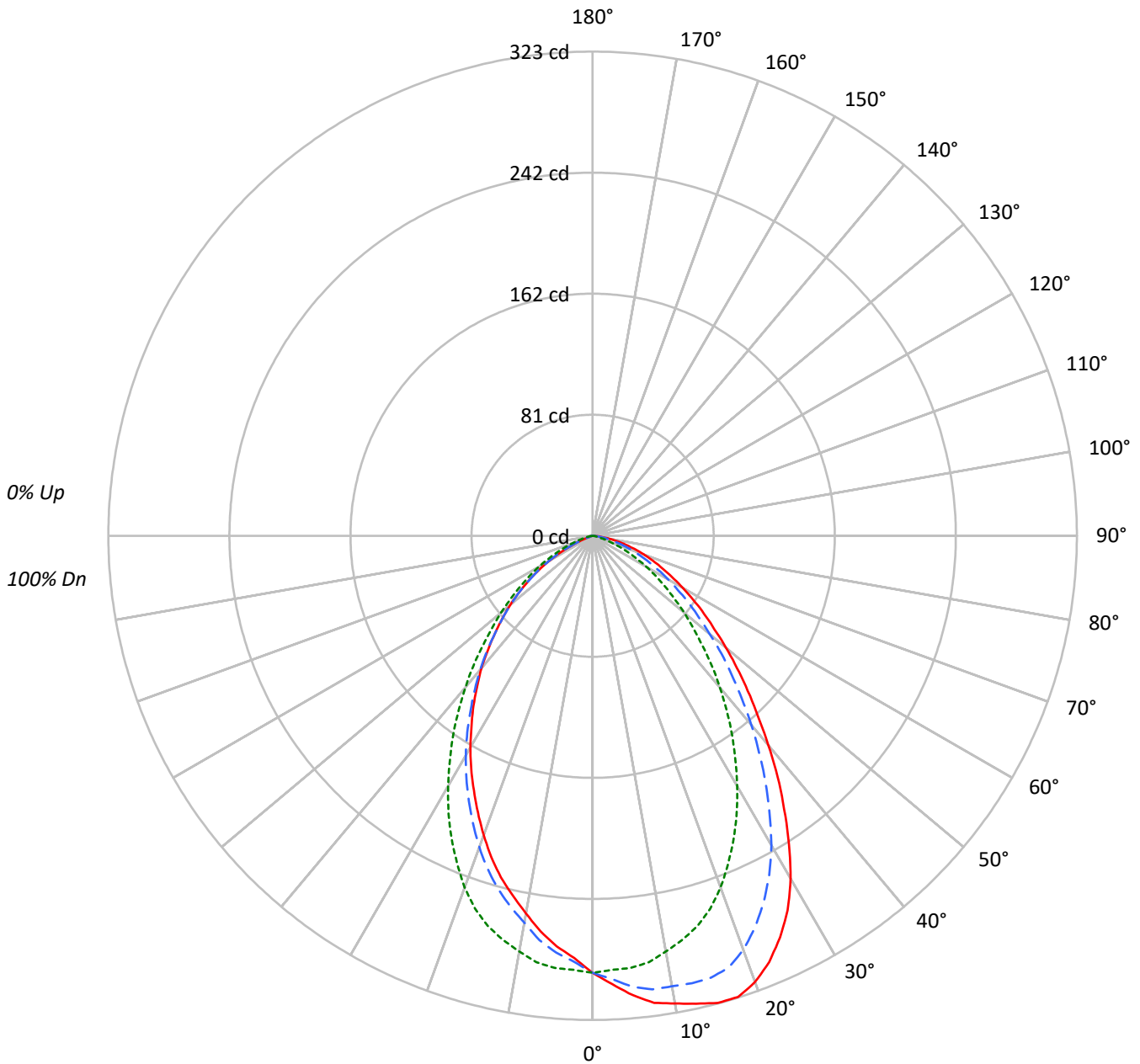
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89			89
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78			78
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69			69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61			61
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55			55
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49			49
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44			44
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40			40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37			37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34			34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	35955	35955	35955
5°	38098	35833	34037
10°	39679	35270	32039
15°	41195	34427	30136
20°	41584	32763	27880
25°	40244	30309	25505
30°	37615	27460	23216
35°	33534	24409	20855
40°	29321	21238	18565
45°	25538	18019	16048
50°	22279	15275	13759
55°	19526	12666	11161
60°	17071	10213	8165
65°	14885	7618	4611
70°	13019	4941	1515
75°	10675	2526	381
80°	7956	1208	355
85°	4670	708	708



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.5	5.5
10°-20°	77.0	15.3
20°-30°	106.5	21.1
30°-40°	107.0	21.3
40°-50°	86.4	17.2
50°-60°	58.4	11.6
60°-70°	29.7	5.9
70°-80°	9.5	1.9
80°-90°	1.5	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°	211.0	41.9
0°-40°	318.0	63.2
0°-60°	462.8	91.9
0°-90°	503.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	503.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	292	292	292	292	292	
5°	308	302	289	279	275	30
15°	323	305	270	244	236	91
25°	296	270	223	195	187	135
35°	223	201	162	142	138	139
45°	146	131	103	92	92	113
55°	91	78	59	51	52	82
65°	51	41	26	17	16	51
75°	22	16	5	1	1	24
85°	3	2	0	0	0	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5
2.5°	299.4	297.7	296.0	293.2	289.9	286.5	284.4	282.8	281.9
5°	307.7	305.7	301.9	295.7	289.4	283.6	279.1	276.1	274.9
7.5°	314.3	311.4	305.2	296.5	286.9	277.8	272.1	267.9	266.2
10°	316.8	313.5	305.2	293.6	281.6	270.4	262.1	257.9	255.8
12.5°	319.7	316.0	305.7	291.1	276.1	262.9	253.3	248.0	245.8
15°	322.6	317.6	305.2	287.4	269.6	254.2	243.8	238.5	236.0
17.5°	322.6	316.8	301.9	281.1	260.8	244.6	233.0	226.8	224.7
20°	316.8	310.2	294.0	271.2	249.6	232.2	221.0	214.7	212.4
22.5°	307.7	300.2	282.8	259.1	236.3	219.4	208.2	202.4	199.9
25°	295.7	288.2	269.9	245.5	222.7	205.7	195.3	189.9	187.4
27.5°	281.6	273.3	255.0	230.5	208.2	192.0	182.4	177.5	175.4
30°	264.1	256.3	238.5	214.4	192.8	177.9	169.2	164.6	163.0
32.5°	243.8	237.2	219.7	197.4	177.1	163.3	155.5	151.7	150.2
35°	222.7	216.4	201.1	180.4	162.1	149.3	141.8	139.4	138.5
37.5°	202.7	197.4	182.4	163.3	146.8	135.6	128.9	127.3	126.4
40°	182.1	178.3	164.6	147.2	131.9	121.9	116.6	115.3	115.3
42.5°	163.3	159.2	147.2	131.4	117.8	107.8	104.1	102.8	103.3
45°	146.4	142.2	131.0	116.6	103.3	95.0	92.0	92.0	92.0
47.5°	130.6	126.9	116.6	101.6	90.8	84.2	81.3	81.3	81.7
50°	116.1	113.6	102.0	89.1	79.6	73.4	71.3	70.9	71.7
52.5°	102.4	99.5	89.1	77.5	68.4	63.4	61.4	60.9	61.4
55°	90.8	87.5	78.3	67.2	58.9	53.9	51.4	51.0	51.9
57.5°	79.6	77.2	67.5	57.7	49.7	44.8	42.7	41.9	42.3
60°	69.2	66.7	58.0	48.5	41.4	36.4	33.6	32.8	33.1
62.5°	59.7	57.7	49.4	40.2	33.1	28.6	25.8	23.6	24.5
65°	51.0	48.9	41.4	32.3	26.1	21.1	17.0	15.3	15.8
67.5°	43.6	41.1	34.0	25.8	19.5	14.1	9.5	8.7	8.7
70°	36.1	33.6	27.4	19.9	13.7	7.5	4.2	4.2	4.2
72.5°	29.1	26.9	21.1	15.0	8.7	3.3	1.7	1.7	1.7
75°	22.4	20.8	15.8	10.3	5.3	1.7	1.2	0.8	0.8
77.5°	16.6	15.0	11.2	7.0	3.3	0.8	0.8	0.8	0.8
80°	11.2	10.0	7.5	4.2	1.7	0.5	0.5	0.5	0.5
82.5°	6.6	5.8	4.2	2.0	0.8	0.5	0.5	0.5	0.5
85°	3.3	2.5	1.7	0.8	0.5	0.5	0.5	0.5	0.5
87.5°	0.8	0.5	0.5	0.5	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



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)