

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: P581098

Luminaire Tested: **HC405D010-HM40525935-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581098
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-HM40525935-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 486.0 lumens
Efficiency: N/A
Efficacy: 81.0 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

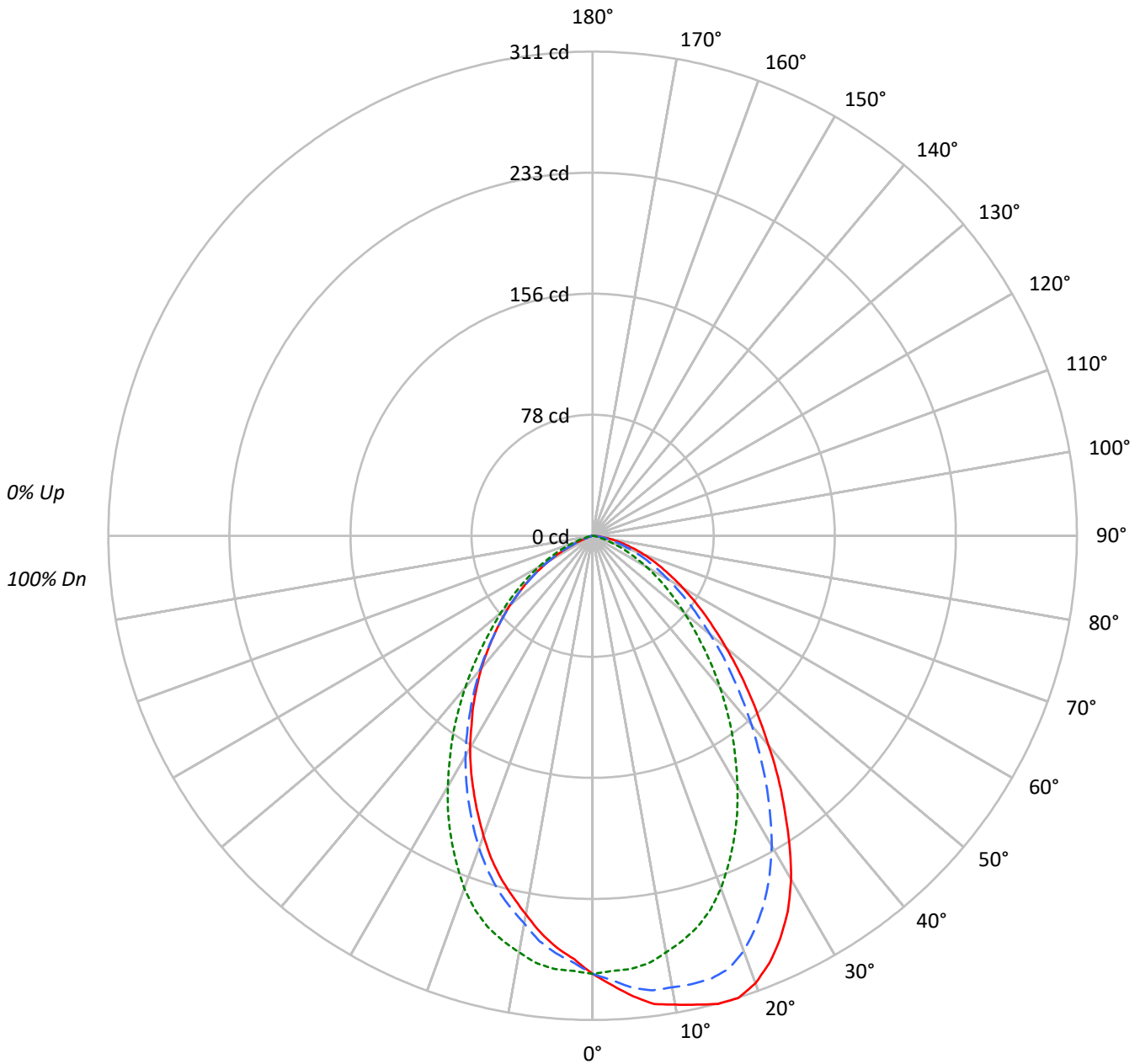
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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								
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89								
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78								
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69								
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61								
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55								
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49								
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44								
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40								
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37								
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	34709	34709	34709
5°	36761	34582	32861
10°	38301	34030	30924
15°	39752	33214	29077
20°	40140	31634	26896
25°	38828	29247	24620
30°	36305	26491	22404
35°	32359	23565	20132
40°	28291	20481	17905
45°	24648	17391	15507
50°	21492	14737	13279
55°	18838	12236	10774
60°	16504	9892	7894
65°	14389	7355	4436
70°	12550	4760	1443
75°	10294	2478	381
80°	7671	1137	355
85°	4529	708	708



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.6	5.5
10°-20°	74.3	15.3
20°-30°	102.7	21.1
30°-40°	103.3	21.3
40°-50°	83.4	17.2
50°-60°	56.4	11.6
60°-70°	28.7	5.9
70°-80°	9.2	1.9
80°-90°	1.4	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°	203.6	41.9
0°-40°	306.9	63.2
0°-60°	446.7	91.9
0°-90°	486.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	486.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	281	281	281	281	281	
5°	297	291	279	269	265	29
15°	311	294	260	235	228	88
25°	285	260	215	188	181	131
35°	215	194	156	137	134	134
45°	141	126	100	89	89	109
55°	88	76	57	50	50	79
65°	49	40	25	16	15	49
75°	22	15	5	1	1	23
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°	281.4	281.4	281.4	281.4	281.4	281.4	281.4	281.4	281.4
2.5°	289.0	287.4	285.7	283.0	279.8	276.5	274.6	273.0	272.2
5°	296.9	295.0	291.4	285.3	279.3	273.8	269.3	266.5	265.4
7.5°	303.4	300.5	294.5	286.1	276.9	268.1	262.5	258.6	257.0
10°	305.8	302.5	294.5	283.3	271.7	260.9	252.9	248.9	246.9
12.5°	308.5	305.0	295.0	280.9	266.5	253.7	244.5	239.3	237.3
15°	311.3	306.6	294.5	277.3	260.1	245.3	235.3	230.1	227.7
17.5°	311.3	305.8	291.4	271.3	251.7	236.1	224.8	218.9	216.9
20°	305.8	299.3	283.8	261.7	241.0	224.0	213.3	207.3	204.9
22.5°	296.9	289.8	273.0	250.2	228.1	211.7	200.9	195.3	192.8
25°	285.3	278.1	260.5	236.9	214.9	198.5	188.5	183.3	180.9
27.5°	271.7	263.7	246.1	222.5	200.9	185.2	176.0	171.3	169.2
30°	254.9	247.3	230.1	206.9	186.0	171.7	163.3	158.9	157.3
32.5°	235.3	228.9	212.1	190.5	170.9	157.7	150.0	146.4	144.8
35°	214.9	208.8	194.1	174.1	156.5	144.0	136.9	134.5	133.7
37.5°	195.7	190.5	176.0	157.7	141.6	130.9	124.5	122.8	122.0
40°	175.7	172.1	158.9	142.1	127.2	117.7	112.5	111.2	111.2
42.5°	157.7	153.7	142.1	126.9	113.6	104.1	100.4	99.2	99.7
45°	141.3	137.2	126.4	112.5	99.7	91.6	88.9	88.9	88.9
47.5°	126.1	122.5	112.5	98.1	87.6	81.3	78.4	78.4	78.9
50°	112.0	109.6	98.4	86.0	76.8	70.8	68.8	68.4	69.2
52.5°	98.9	96.0	86.0	74.8	66.1	61.2	59.2	58.8	59.2
55°	87.6	84.4	75.6	64.8	56.9	52.0	49.6	49.3	50.1
57.5°	76.8	74.5	65.3	55.6	48.0	43.2	41.2	40.4	40.9
60°	66.9	64.5	56.1	46.9	40.1	35.2	32.5	31.7	32.0
62.5°	57.7	55.6	47.7	38.8	32.0	27.6	24.9	22.8	23.6
65°	49.3	47.2	40.1	31.2	25.2	20.4	16.5	14.8	15.2
67.5°	42.0	39.6	32.8	24.9	18.8	13.6	9.2	8.4	8.4
70°	34.8	32.5	26.4	19.2	13.2	7.2	4.0	4.0	4.0
72.5°	28.0	26.0	20.4	14.4	8.4	3.2	1.6	1.6	1.6
75°	21.6	20.0	15.2	10.0	5.2	1.6	1.2	0.8	0.8
77.5°	16.0	14.4	10.8	6.8	3.2	0.8	0.8	0.8	0.8
80°	10.8	9.6	7.2	4.0	1.6	0.5	0.5	0.5	0.5
82.5°	6.4	5.6	4.0	2.0	0.8	0.5	0.5	0.5	0.5
85°	3.2	2.4	1.6	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)