

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: P579933

Luminaire Tested: **HC415D010-HM40525930-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579933
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: HC415D010-HM40525930-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1027.5 lumens
Efficiency: N/A
Efficacy: 73.4 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

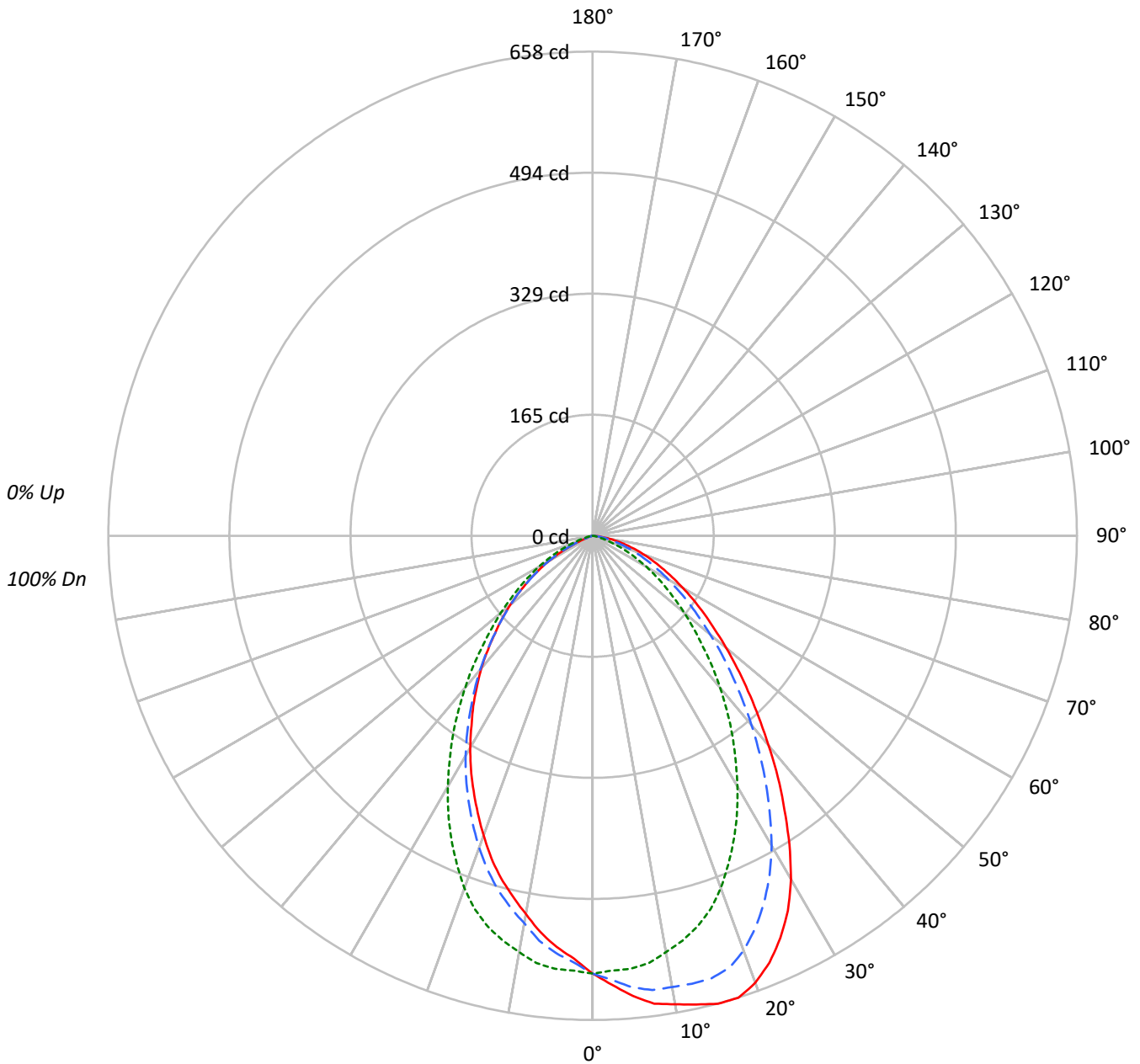
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	43	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°	73378	73378	73378
5°	77745	73139	69461
10°	80973	71955	65392
15°	84063	70233	61486
20°	84861	66865	56863
25°	82107	61829	52057
30°	76783	56045	47371
35°	68407	49826	42568
40°	59818	43329	37871
45°	52104	36754	32759
50°	45478	31182	28074
55°	39848	25849	22730
60°	34857	20870	16701
65°	30354	15556	9398
70°	26543	10098	3029
75°	21779	5242	810
80°	16266	2415	568
85°	9624	1132	1132



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.1	5.5
10°-20°	157.1	15.3
20°-30°	217.3	21.1
30°-40°	218.4	21.3
40°-50°	176.3	17.2
50°-60°	119.2	11.6
60°-70°	60.7	5.9
70°-80°	19.4	1.9
80°-90°	3.0	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°	430.5	41.9
0°-40°	649.0	63.2
0°-60°	944.4	91.9
0°-90°	1027.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1027.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	595	595	595	595	595	
5°	628	616	591	570	561	61
15°	658	623	550	498	482	185
25°	603	551	454	398	382	276
35°	454	410	331	289	283	284
45°	299	267	211	188	188	231
55°	185	160	120	105	106	166
65°	104	85	53	35	32	104
75°	46	32	11	2	2	49
85°	7	3	1	1	1	9
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°	594.9	594.9	594.9	594.9	594.9	594.9	594.9	594.9	594.9
2.5°	610.9	607.5	604.2	598.3	591.5	584.8	580.4	577.1	575.4
5°	627.9	623.6	616.0	603.3	590.7	578.7	569.5	563.5	561.0
7.5°	641.4	635.5	622.7	605.0	585.6	566.9	555.1	546.7	543.3
10°	646.5	639.7	622.7	599.1	574.5	551.7	534.7	526.3	522.1
12.5°	652.4	644.8	623.6	594.0	563.5	536.4	517.0	506.0	501.8
15°	658.3	648.2	622.7	586.4	550.0	518.7	497.6	486.5	481.5
17.5°	658.3	646.5	616.0	573.7	532.2	499.3	475.5	462.9	458.7
20°	646.5	633.0	599.9	553.4	509.4	473.9	451.0	438.3	433.2
22.5°	627.9	612.6	577.1	528.8	482.3	447.6	424.8	413.0	407.8
25°	603.3	588.1	550.9	501.0	454.3	419.7	398.5	387.6	382.5
27.5°	574.5	557.6	520.4	470.5	424.8	391.8	372.4	362.1	357.9
30°	539.1	522.9	486.5	437.5	393.5	363.0	345.2	336.0	332.6
32.5°	497.6	484.0	448.4	402.7	361.3	333.4	317.3	309.7	306.3
35°	454.3	441.7	410.3	368.0	330.9	304.6	289.4	284.4	282.7
37.5°	413.8	402.7	372.4	333.4	299.6	276.7	263.2	259.8	258.1
40°	371.5	363.8	336.0	300.4	269.1	248.8	237.7	235.2	235.2
42.5°	333.4	325.0	300.4	268.2	240.4	220.0	212.4	209.9	210.7
45°	298.7	290.3	267.4	237.7	210.7	193.7	187.8	187.8	187.8
47.5°	266.5	258.9	237.7	207.3	185.3	171.8	165.9	165.9	166.7
50°	237.0	231.8	208.2	181.9	162.5	149.7	145.5	144.7	146.3
52.5°	209.0	203.1	181.9	158.3	139.6	129.5	125.2	124.4	125.2
55°	185.3	178.5	160.0	137.1	120.2	109.9	104.9	104.0	105.7
57.5°	162.5	157.4	137.9	117.6	101.5	91.4	87.2	85.5	86.3
60°	141.3	136.2	118.5	99.0	84.6	74.5	68.6	66.9	67.7
62.5°	121.9	117.6	100.7	82.1	67.7	58.4	52.4	48.2	49.9
65°	104.0	99.8	84.6	65.9	53.3	43.2	34.7	31.3	32.2
67.5°	88.8	83.8	69.4	52.4	39.8	28.8	19.4	17.7	17.7
70°	73.6	68.6	55.8	40.6	28.0	15.2	8.4	8.4	8.4
72.5°	59.2	55.0	43.2	30.5	17.7	6.8	3.4	3.4	3.4
75°	45.7	42.3	32.2	21.1	11.0	3.4	2.5	1.7	1.7
77.5°	33.9	30.5	22.9	14.4	6.8	1.7	1.7	1.7	1.7
80°	22.9	20.4	15.2	8.4	3.4	0.8	0.8	0.8	0.8
82.5°	13.5	11.8	8.4	4.2	1.7	0.8	0.8	0.8	0.8
85°	6.8	5.1	3.4	1.7	0.8	0.8	0.8	0.8	0.8
87.5°	1.7	0.8	0.8	0.8	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)