

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: P579915

Luminaire Tested: **HC415D010-HM40525927-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579915
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-HM40525927-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 923.6 lumens
Efficiency: N/A
Efficacy: 66.0 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

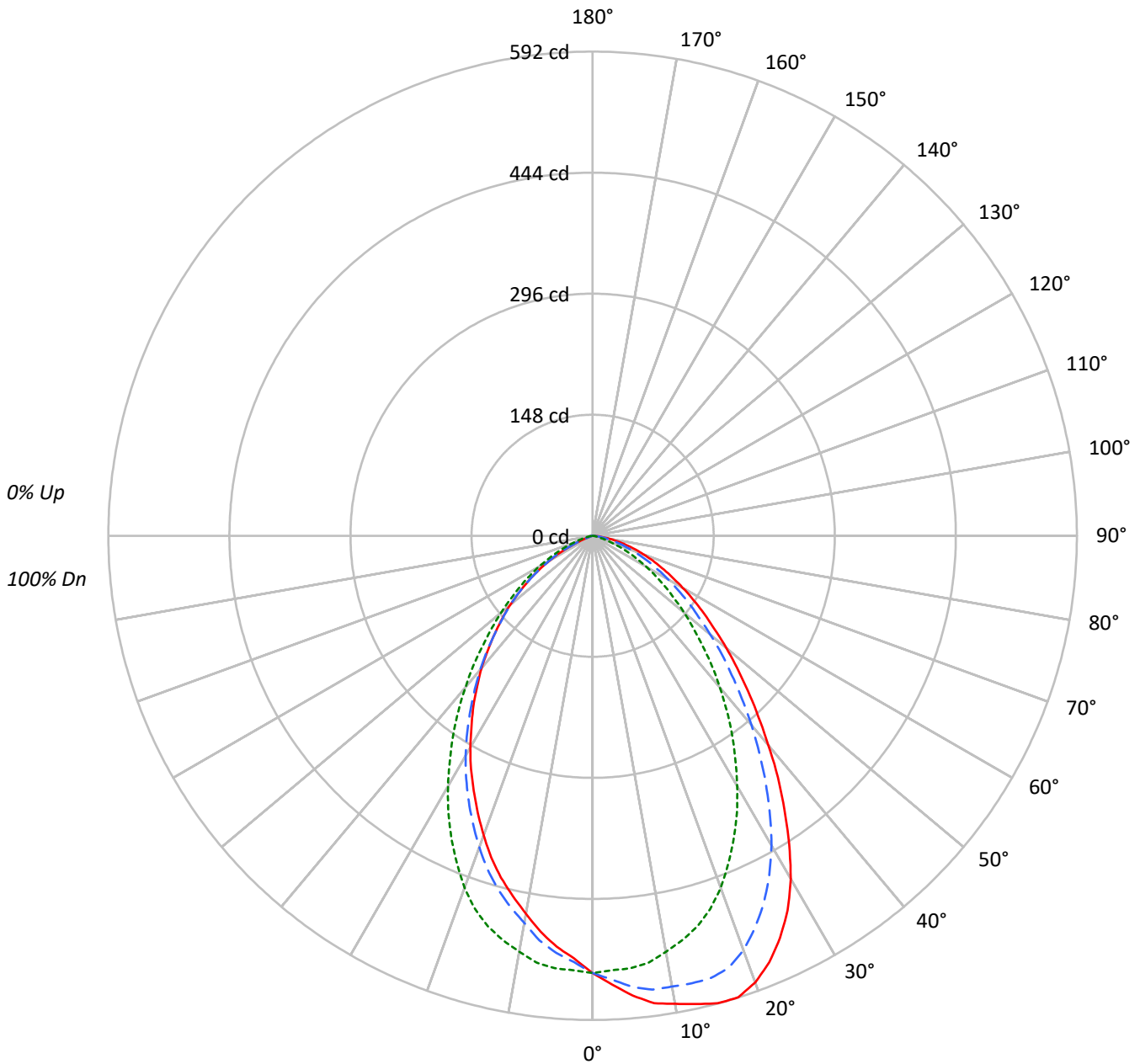
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	65941	65941	65941
5°	69870	65734	62441
10°	72782	64678	58767
15°	75558	63133	55254
20°	76276	60105	51113
25°	73792	55582	46790
30°	69006	50362	42572
35°	61496	44767	38247
40°	53763	38934	34055
45°	46819	33038	29445
50°	40873	28016	25253
55°	35827	23225	20451
60°	31330	18773	14999
65°	27318	13980	8435
70°	23874	9052	2741
75°	19539	4718	715
80°	14633	2202	568
85°	8633	1132	1132



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.5	5.5
10°-20°	141.2	15.3
20°-30°	195.3	21.1
30°-40°	196.3	21.3
40°-50°	158.4	17.2
50°-60°	107.1	11.6
60°-70°	54.5	5.9
70°-80°	17.5	1.9
80°-90°	2.7	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°	387.0	41.9
0°-40°	583.3	63.2
0°-60°	848.9	91.9
0°-90°	923.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	923.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	535	535	535	535	535	
5°	564	554	531	512	504	54
15°	592	560	494	447	433	167
25°	542	495	408	358	344	248
35°	408	369	297	260	254	255
45°	268	240	189	169	169	208
55°	167	144	108	94	95	150
65°	94	76	48	31	29	94
75°	41	29	10	2	2	44
85°	6	3	1	1	1	8
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°	534.6	534.6	534.6	534.6	534.6	534.6	534.6	534.6	534.6
2.5°	549.2	546.1	543.0	537.7	531.7	525.5	521.8	518.7	517.2
5°	564.3	560.5	553.7	542.2	530.9	520.2	511.9	506.5	504.3
7.5°	576.5	571.2	559.7	543.8	526.3	509.6	498.9	491.3	488.2
10°	581.1	575.0	559.7	538.5	516.4	495.8	480.7	473.1	469.2
12.5°	586.4	579.5	560.5	533.9	506.5	482.2	464.7	454.8	451.0
15°	591.7	582.6	559.7	527.1	494.4	466.2	447.2	437.3	432.7
17.5°	591.7	581.1	553.7	515.6	478.3	448.8	427.4	416.0	412.3
20°	581.1	569.0	539.3	497.4	457.9	425.9	405.3	394.0	389.4
22.5°	564.3	550.6	518.7	475.4	433.5	402.4	381.8	371.1	366.6
25°	542.2	528.6	495.2	450.3	408.4	377.3	358.3	348.4	343.8
27.5°	516.4	501.2	467.8	422.9	381.8	352.1	334.6	325.5	321.8
30°	484.5	470.0	437.3	393.2	353.6	326.3	310.3	302.0	298.9
32.5°	447.2	435.0	403.1	362.0	324.7	299.7	285.2	278.3	275.3
35°	408.4	397.0	368.8	330.9	297.3	273.8	260.1	255.6	254.0
37.5°	371.9	362.0	334.6	299.7	269.2	248.7	236.5	233.5	231.9
40°	333.9	327.0	302.0	270.0	241.8	223.6	213.8	211.5	211.5
42.5°	299.7	292.1	270.0	241.0	216.0	197.7	190.9	188.6	189.4
45°	268.4	260.8	240.4	213.8	189.4	174.2	168.8	168.8	168.8
47.5°	239.6	232.7	213.8	186.4	166.6	154.4	149.1	149.1	149.9
50°	213.0	208.4	187.2	163.5	146.0	134.6	130.9	130.1	131.6
52.5°	187.8	182.5	163.5	142.2	125.5	116.3	112.6	111.8	112.6
55°	166.6	160.4	143.7	123.3	108.0	98.9	94.3	93.6	95.1
57.5°	146.0	141.4	123.9	105.7	91.3	82.1	78.3	76.9	77.5
60°	127.0	122.5	106.4	89.0	76.1	67.0	61.6	60.0	60.8
62.5°	109.5	105.7	90.5	73.8	60.8	52.5	47.2	43.3	44.9
65°	93.6	89.7	76.1	59.4	47.9	38.8	31.2	28.1	28.9
67.5°	79.8	75.3	62.4	47.2	35.7	25.8	17.5	15.9	15.9
70°	66.2	61.6	50.1	36.5	25.1	13.6	7.6	7.6	7.6
72.5°	53.2	49.5	38.8	27.4	15.9	6.1	3.1	3.1	3.1
75°	41.0	38.0	28.9	19.0	9.9	3.1	2.3	1.5	1.5
77.5°	30.5	27.4	20.6	13.0	6.1	1.5	1.5	1.5	1.5
80°	20.6	18.3	13.6	7.6	3.1	0.8	0.8	0.8	0.8
82.5°	12.2	10.7	7.6	3.8	1.5	0.8	0.8	0.8	0.8
85°	6.1	4.5	3.1	1.5	0.8	0.8	0.8	0.8	0.8
87.5°	1.5	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)