

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: P579843

Luminaire Tested: **HC415D010-HM40525827-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579843
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-HM40525827-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1079.5 lumens
Efficiency: N/A
Efficacy: 77.1 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

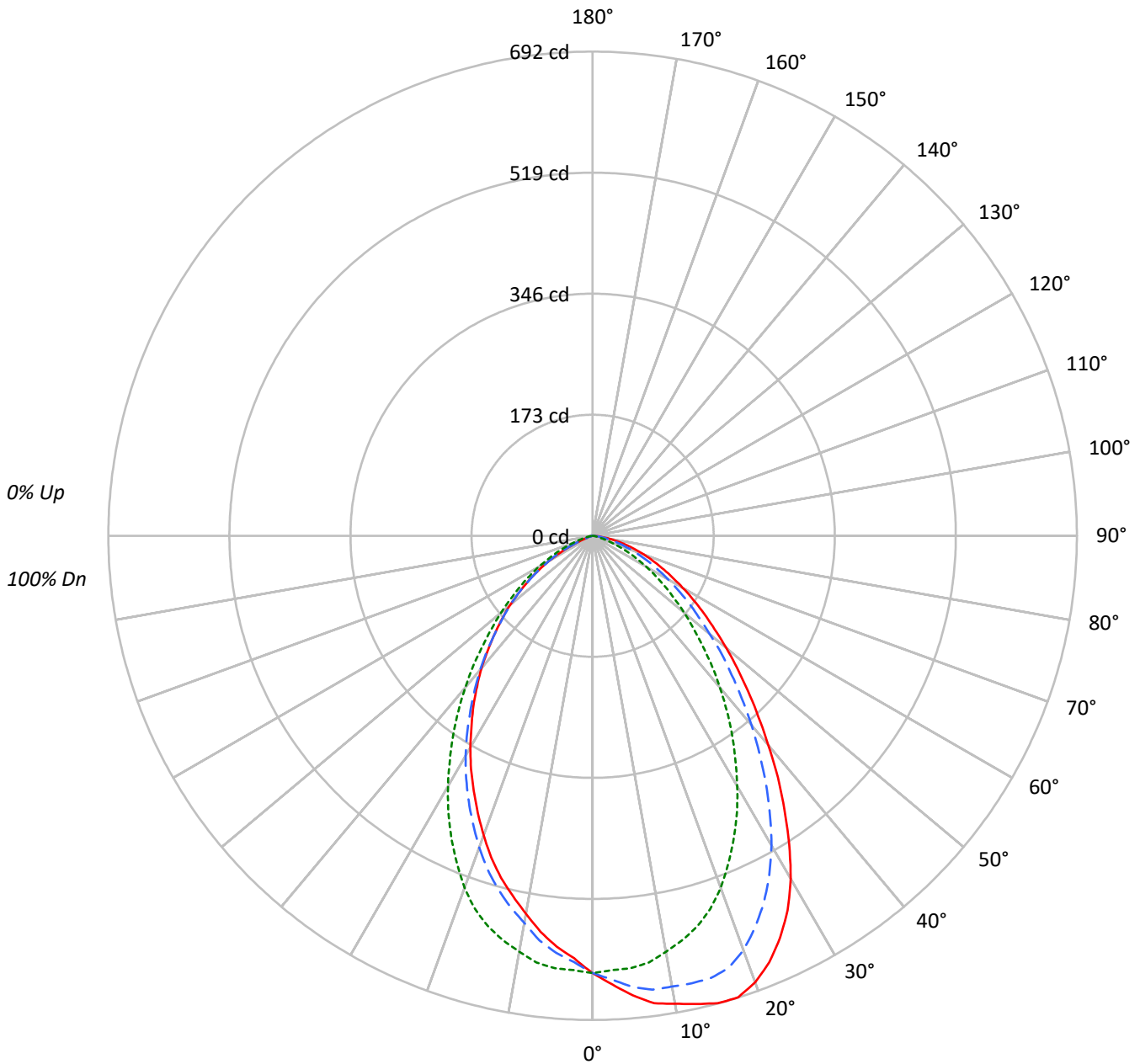
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	77091	77091	77091
5°	81670	76828	72978
10°	85056	75600	68699
15°	88315	73783	64602
20°	89140	70251	59737
25°	86272	64973	54684
30°	80642	58879	49764
35°	71886	52341	44706
40°	62829	45519	39803
45°	54738	38620	34434
50°	47762	32756	29513
55°	41870	27139	23892
60°	36634	21931	17540
65°	31930	16373	9865
70°	27877	10567	3210
75°	22875	5528	858
80°	17048	2486	639
85°	10190	1274	1274



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.0	5.5
10°-20°	165.1	15.3
20°-30°	228.2	21.1
30°-40°	229.5	21.3
40°-50°	185.2	17.2
50°-60°	125.2	11.6
60°-70°	63.7	5.9
70°-80°	20.4	1.9
80°-90°	3.1	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°	452.3	41.9
0°-40°	681.8	63.2
0°-60°	992.2	91.9
0°-90°	1079.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1079.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	625	625	625	625	625	
5°	660	647	620	598	589	64
15°	692	654	578	523	506	195
25°	634	579	477	419	402	290
35°	477	431	348	304	297	298
45°	314	281	221	197	197	243
55°	195	168	126	110	111	175
65°	109	89	56	36	34	110
75°	48	34	12	3	2	52
85°	7	4	1	1	1	10
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°	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
2.5°	641.8	638.3	634.8	628.5	621.4	614.3	609.9	606.2	604.5
5°	659.6	655.1	647.2	633.9	620.5	608.1	598.3	592.0	589.4
7.5°	673.9	667.6	654.3	635.6	615.2	595.6	583.2	574.3	570.8
10°	679.1	672.1	654.3	629.4	603.6	579.6	561.8	552.9	548.5
12.5°	685.4	677.4	655.1	624.1	592.0	563.6	543.1	531.7	527.1
15°	691.6	680.9	654.3	616.0	577.8	545.0	522.7	511.2	505.9
17.5°	691.6	679.1	647.2	602.7	559.2	524.5	499.6	486.3	481.9
20°	679.1	664.9	630.2	581.3	535.2	497.8	473.8	460.5	455.1
22.5°	659.6	643.7	606.2	555.7	506.8	470.3	446.3	433.9	428.5
25°	633.9	617.8	578.7	526.3	477.4	440.9	418.8	407.2	401.8
27.5°	603.6	585.8	546.7	494.3	446.3	411.6	391.1	380.4	376.0
30°	566.2	549.4	511.2	459.6	413.4	381.3	362.7	352.9	349.4
32.5°	522.7	508.5	471.2	423.2	379.6	350.3	333.4	325.4	321.8
35°	477.4	464.0	431.2	386.7	347.6	320.1	304.0	298.7	296.9
37.5°	434.7	423.2	391.1	350.3	314.7	290.7	276.5	272.9	271.2
40°	390.2	382.3	352.9	315.6	282.7	261.4	249.8	247.2	247.2
42.5°	350.3	341.3	315.6	281.9	252.4	231.2	223.1	220.5	221.4
45°	313.8	304.9	281.0	249.8	221.4	203.5	197.4	197.4	197.4
47.5°	280.0	272.1	249.8	217.8	194.7	180.4	174.2	174.2	175.1
50°	248.9	243.5	218.6	191.1	170.7	157.4	152.9	152.0	153.8
52.5°	219.6	213.3	191.1	166.2	146.7	136.0	131.6	130.6	131.6
55°	194.7	187.6	168.0	144.1	126.2	115.5	110.3	109.4	111.1
57.5°	170.7	165.3	144.9	123.6	106.7	96.0	91.5	89.8	90.7
60°	148.5	143.1	124.5	104.0	88.9	78.2	72.0	70.3	71.1
62.5°	128.0	123.6	105.7	86.2	71.1	61.3	55.1	50.7	52.4
65°	109.4	104.9	88.9	69.4	56.1	45.4	36.5	32.9	33.8
67.5°	93.3	88.0	72.9	55.1	41.7	30.2	20.5	18.6	18.6
70°	77.3	72.0	58.7	42.6	29.3	16.0	8.9	8.9	8.9
72.5°	62.2	57.8	45.4	31.9	18.6	7.2	3.5	3.5	3.5
75°	48.0	44.5	33.8	22.2	11.6	3.5	2.6	1.8	1.8
77.5°	35.6	31.9	24.0	15.1	7.2	1.8	1.8	1.8	1.8
80°	24.0	21.4	16.0	8.9	3.5	0.9	0.9	0.9	0.9
82.5°	14.2	12.4	8.9	4.4	1.8	0.9	0.9	0.9	0.9
85°	7.2	5.3	3.5	1.8	0.9	0.9	0.9	0.9	0.9
87.5°	1.8	0.9	0.9	0.9	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)