

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: P579953

Luminaire Tested: **HC415D010-HM40525935-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579953
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC415D010-HM40525935-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1347.1 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

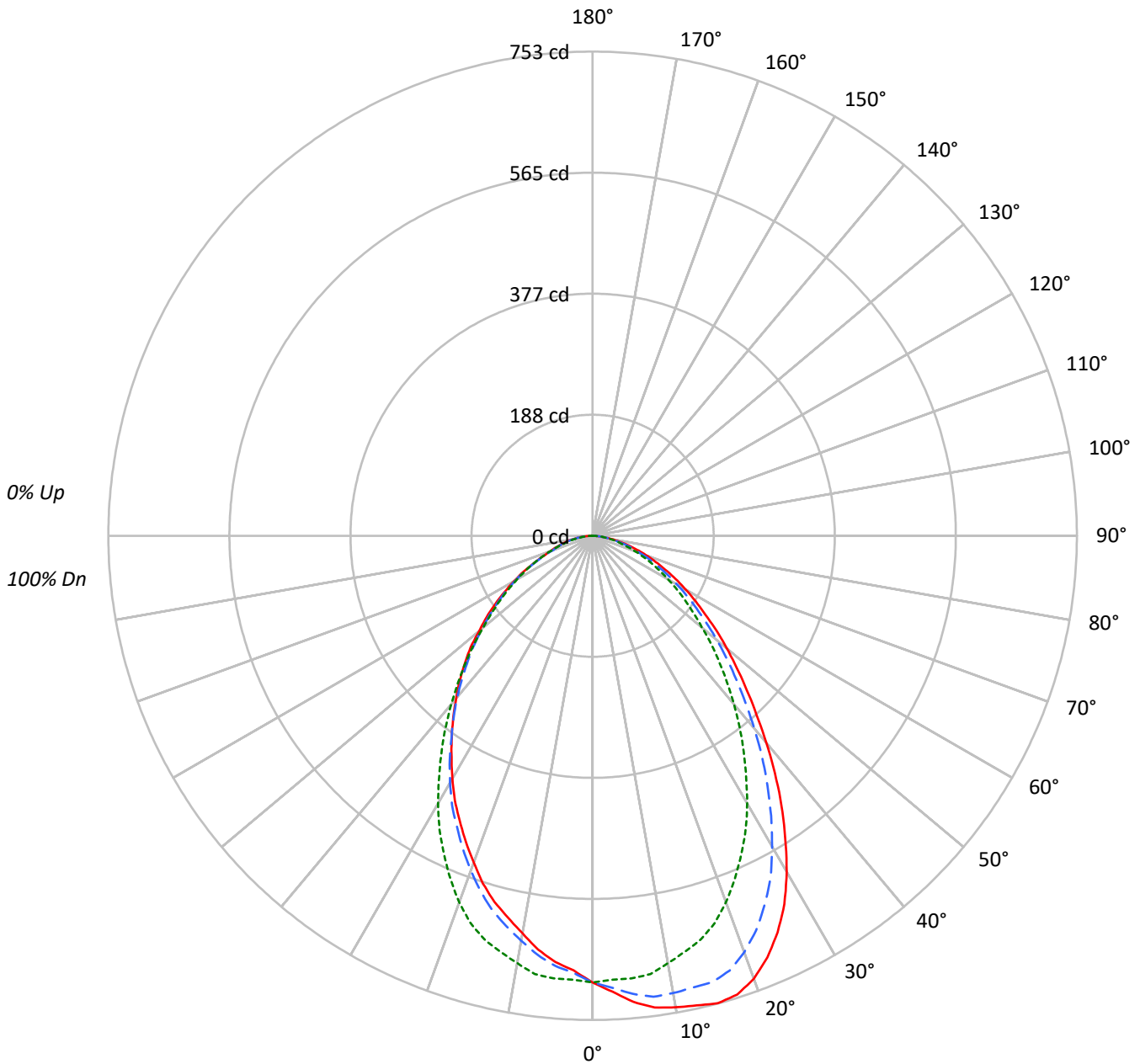
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	85676	85676	85676
5°	90101	85570	82375
10°	93260	84543	78618
15°	96105	83003	75264
20°	96215	79597	70934
25°	92600	74391	66511
30°	85969	68451	62098
35°	77080	61631	57475
40°	67627	55003	53135
45°	59099	48685	48982
50°	52195	42619	44135
55°	46020	37784	39676
60°	41148	33427	34759
65°	36424	29390	29390
70°	31808	25100	25100
75°	27212	21255	23781
80°	21594	18966	21594
85°	13869	16417	20096



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.8	4.9
10°-20°	185.3	13.8
20°-30°	259.6	19.3
30°-40°	267.5	19.9
40°-50°	227.7	16.9
50°-60°	168.7	12.5
60°-70°	105.9	7.9
70°-80°	52.6	3.9
80°-90°	13.8	1.0
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°	510.8	37.9
0°-40°	778.3	57.8
0°-60°	1174.8	87.2
0°-90°	1347.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1347.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	695	695	695	695	695	
5°	728	715	691	671	665	70
15°	753	719	650	603	589	212
25°	680	633	547	499	489	311
35°	512	473	409	382	382	319
45°	339	316	279	274	281	263
55°	214	197	176	179	184	193
65°	125	112	101	99	101	124
75°	57	51	45	48	50	61
85°	10	10	12	13	14	13
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°	694.6	694.6	694.6	694.6	694.6	694.6	694.6	694.6	694.6
2.5°	709.8	707.1	703.6	697.3	691.1	685.7	680.4	677.7	676.7
5°	727.7	722.2	715.2	703.6	691.1	680.4	671.4	667.0	665.3
7.5°	740.1	734.7	723.1	705.3	687.5	671.4	657.2	650.9	649.1
10°	744.6	738.4	722.2	698.2	675.0	655.4	639.3	631.4	627.7
12.5°	748.1	740.1	719.6	691.1	662.5	638.4	621.5	610.8	608.2
15°	752.6	743.7	718.7	683.9	650.0	621.5	602.8	592.9	589.4
17.5°	748.1	738.4	708.9	669.7	631.4	600.1	579.6	570.7	567.1
20°	733.0	722.2	689.2	647.4	606.4	574.3	553.7	544.9	540.4
22.5°	709.8	698.2	664.3	619.8	577.8	546.6	527.0	518.1	515.4
25°	680.4	668.8	633.1	587.6	546.6	516.3	499.4	491.3	488.7
27.5°	645.6	634.0	599.2	554.6	515.4	486.9	473.4	465.5	463.7
30°	603.6	592.0	558.2	517.2	480.6	453.9	443.2	436.9	436.0
32.5°	557.4	547.5	516.3	478.8	444.1	421.8	413.8	409.3	408.4
35°	511.9	501.2	473.4	439.6	409.3	389.6	382.5	381.7	381.7
37.5°	465.5	454.8	432.5	401.2	375.4	357.6	354.9	355.8	355.8
40°	420.0	410.2	390.6	364.7	341.6	328.1	327.2	329.0	330.0
42.5°	377.1	369.2	351.3	329.0	309.4	298.7	299.6	303.1	305.9
45°	338.8	331.7	315.6	296.1	279.1	271.1	273.8	278.2	280.8
47.5°	304.0	297.8	282.7	264.8	250.6	245.3	248.8	254.1	257.6
50°	272.0	266.6	252.3	233.7	222.1	218.4	223.0	228.3	230.0
52.5°	243.4	238.1	223.0	206.8	198.0	196.1	200.7	205.1	207.7
55°	214.0	209.5	197.0	182.8	175.7	174.8	179.2	182.8	184.5
57.5°	189.9	185.4	173.8	161.3	155.2	154.3	158.7	161.3	162.2
60°	166.8	162.2	151.6	140.0	135.5	135.5	138.3	140.0	140.9
62.5°	145.3	140.9	131.1	121.3	117.7	117.7	117.7	118.6	121.3
65°	124.8	121.3	112.3	103.5	100.7	99.0	99.0	99.0	100.7
67.5°	106.1	102.6	95.4	87.4	84.7	82.1	81.2	82.9	82.9
70°	88.2	85.6	78.5	72.2	69.6	66.9	65.9	69.6	69.6
72.5°	72.2	69.6	65.2	58.9	56.2	55.3	57.1	58.9	59.7
75°	57.1	54.3	50.8	47.3	44.6	45.5	48.1	49.0	49.9
77.5°	42.8	42.0	38.3	35.7	35.7	36.6	38.3	40.1	41.0
80°	30.4	29.4	27.6	25.8	26.7	28.5	29.4	31.2	30.4
82.5°	18.8	18.8	17.9	17.9	18.8	20.5	21.4	22.3	23.2
85°	9.8	9.8	9.8	10.7	11.6	12.5	13.4	14.2	14.2
87.5°	2.7	3.5	3.5	4.4	5.3	5.3	6.3	6.3	6.3
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)