

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: P579950

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579950
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC415D010-HM40525935-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1367.7 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

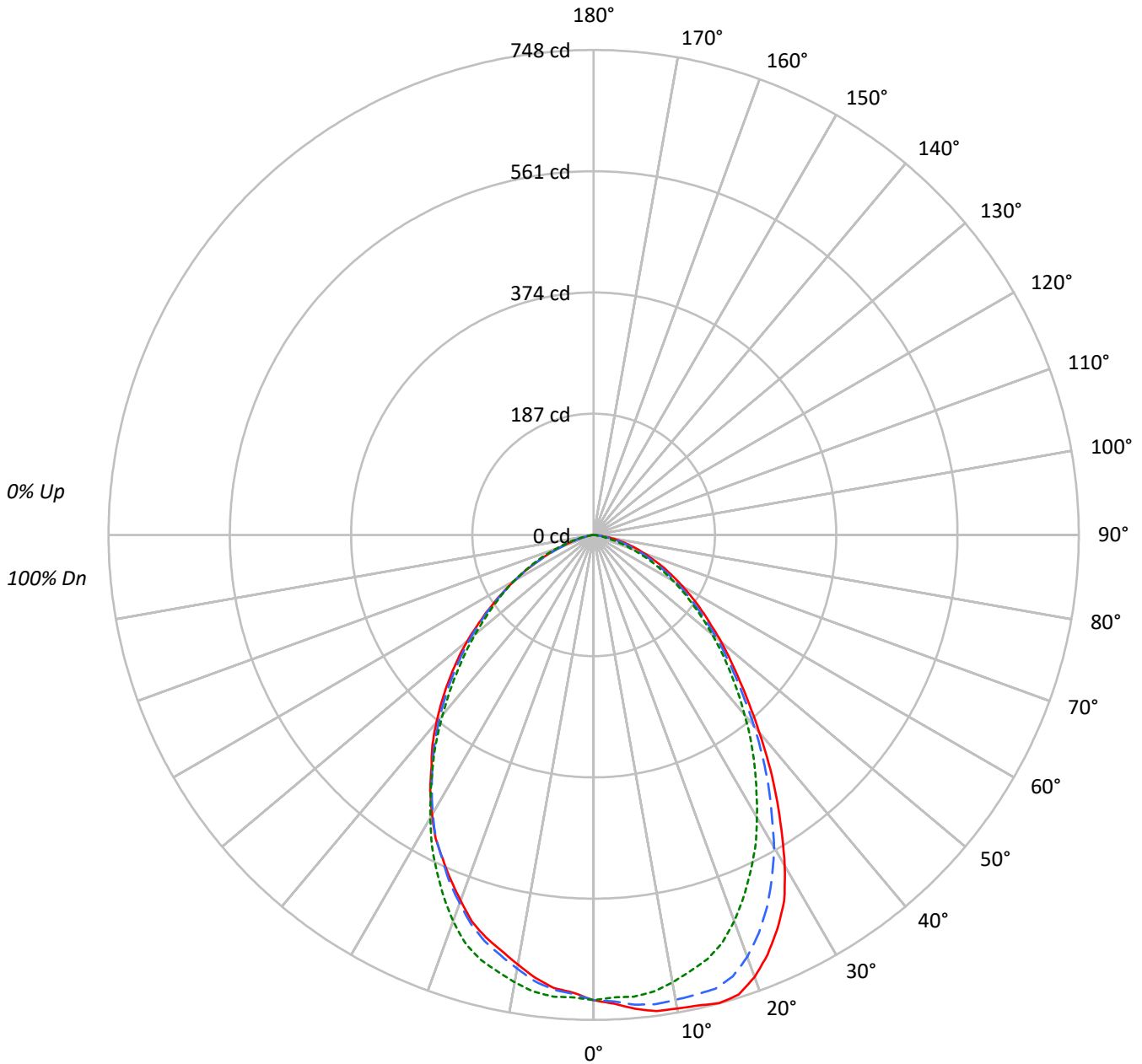
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77			77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67			67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59			59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52			52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47			47
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35			35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	88513	88513	88513
5°	90832	88504	86857
10°	92884	87749	84292
15°	95492	86502	82058
20°	95230	83194	78744
25°	91226	77888	74976
30°	83918	71726	70957
35°	73828	65095	65622
40°	63875	58272	60703
45°	55506	51790	54878
50°	49259	45670	48740
55°	43697	40042	41784
60°	38928	34759	34759
65°	34615	28865	27055
70°	29897	21855	19258
75°	25068	14488	11914
80°	18966	6961	6322
85°	10190	2547	2547



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.0	5.0
10°-20°	192.6	14.1
20°-30°	271.7	19.9
30°-40°	280.7	20.5
40°-50°	237.9	17.4
50°-60°	173.1	12.7
60°-70°	101.2	7.4
70°-80°	37.6	2.7
80°-90°	4.9	0.4
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°	532.3	38.9
0°-40°	812.9	59.4
0°-60°	1224.0	89.5
0°-90°	1367.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1367.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	718	718	718	718	718	
5°	734	727	715	704	702	70
15°	748	725	677	649	643	210
25°	670	633	572	552	551	307
35°	490	469	432	433	436	306
45°	318	309	297	308	315	248
55°	203	193	186	192	194	183
65°	119	109	99	93	93	118
75°	53	44	30	24	25	56
85°	7	4	2	2	2	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°	717.6	717.6	717.6	717.6	717.6	717.6	717.6	717.6	717.6
2.5°	723.8	722.0	720.2	717.6	713.9	711.3	708.6	706.9	706.9
5°	733.6	730.9	727.3	721.1	714.8	709.5	704.1	701.5	701.5
7.5°	740.8	737.1	730.1	721.1	710.4	702.3	694.4	690.8	689.0
10°	741.6	738.0	728.2	714.8	700.6	688.1	679.2	673.9	673.0
12.5°	743.4	738.9	726.4	707.8	689.0	673.9	664.0	658.7	657.0
15°	747.8	741.6	724.6	700.6	677.4	659.6	648.9	644.5	642.6
17.5°	743.4	734.5	713.9	685.5	659.6	640.0	629.3	624.8	624.8
20°	725.5	716.7	692.5	661.4	633.8	615.0	604.3	601.7	599.9
22.5°	700.6	690.8	664.9	631.9	604.3	587.4	580.2	576.7	575.8
25°	670.3	660.5	632.9	599.0	572.3	557.9	551.8	551.8	550.9
27.5°	636.4	624.0	595.4	566.0	540.2	529.5	526.8	526.8	527.7
30°	589.2	580.2	556.2	527.7	503.6	496.5	496.5	498.2	498.2
32.5°	538.4	532.1	510.7	485.8	467.1	462.6	464.4	468.0	468.9
35°	490.3	483.1	468.9	446.6	432.3	430.5	433.2	435.8	435.8
37.5°	443.0	435.8	426.0	408.2	397.5	398.4	402.0	405.6	408.2
40°	396.7	391.4	384.2	369.9	361.9	365.4	369.9	373.5	377.0
42.5°	355.7	350.3	345.0	334.3	328.9	333.4	338.7	342.2	345.9
45°	318.2	314.6	309.3	300.4	296.9	301.3	307.6	311.1	314.6
47.5°	286.1	284.4	277.2	269.2	267.4	271.9	277.2	281.6	284.4
50°	256.7	254.0	247.8	239.8	238.0	245.1	248.7	251.4	254.0
52.5°	228.2	225.5	218.4	211.3	211.3	216.6	219.3	220.1	222.9
55°	203.2	200.6	193.4	188.1	186.2	190.8	192.5	192.5	194.3
57.5°	180.1	177.4	170.2	164.0	163.2	165.8	165.8	165.8	166.7
60°	157.8	155.1	147.9	142.6	140.9	141.7	140.9	140.0	140.9
62.5°	137.2	134.6	127.5	121.2	119.4	119.4	116.8	115.9	116.8
65°	118.6	114.0	108.7	102.6	98.9	96.3	92.7	92.7	92.7
67.5°	99.8	96.3	90.1	83.8	79.4	74.9	69.5	71.3	72.2
70°	82.9	80.3	73.1	66.9	60.6	55.3	50.8	52.6	53.4
72.5°	67.8	64.1	58.0	50.8	45.5	38.3	35.7	37.4	37.4
75°	52.6	49.0	43.7	36.5	30.4	24.1	24.1	25.0	25.0
77.5°	39.2	35.7	30.4	24.1	18.8	14.2	15.1	15.1	15.1
80°	26.7	24.1	19.6	14.2	9.8	8.1	8.1	8.1	8.9
82.5°	15.1	13.4	10.7	7.2	4.4	4.4	4.4	4.4	4.4
85°	7.2	5.3	4.4	2.7	1.8	1.8	1.8	1.8	1.8
87.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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)