

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: P579859

Luminaire Tested: **HC415D010-HM40525830-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579859
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC415D010-HM40525830-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1485.1 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

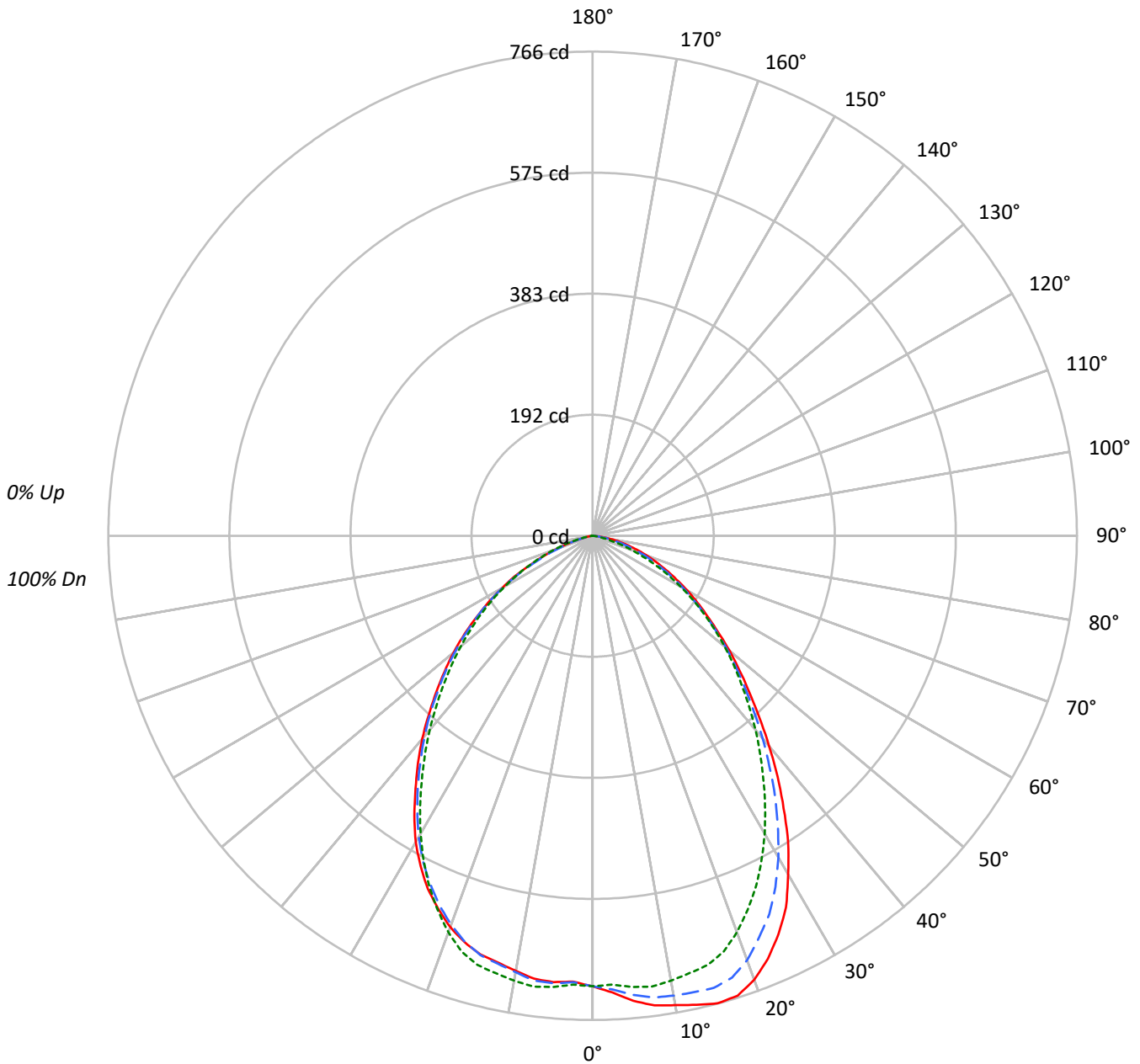
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88				
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76				76				
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67				67				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	62	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52				52				
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46				46				
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41				41				
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37				37				
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34				34				
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31				31				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	87908	87908	87908
5°	91463	88715	87761
10°	94450	89503	87561
15°	97777	89771	87562
20°	98105	87604	86475
25°	94642	83237	83890
30°	88063	77509	79688
35°	79324	70907	73512
40°	69929	64519	67466
45°	61140	58140	60983
50°	54152	52290	55073
55°	47633	46192	48041
60°	42530	39446	40605
65°	37387	32046	31492
70°	32638	23622	21530
75°	27069	14249	11485
80°	20528	5469	3410
85°	9482	1274	1274



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.7	4.6
10°-20°	200.6	13.5
20°-30°	290.5	19.6
30°-40°	306.5	20.6
40°-50°	265.3	17.9
50°-60°	196.5	13.2
60°-70°	113.3	7.6
70°-80°	39.6	2.7
80°-90°	4.1	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°	559.9	37.7
0°-40°	866.4	58.3
0°-60°	1328.1	89.4
0°-90°	1485.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1485.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	713	713	713	713	713	
5°	739	729	716	711	709	71
15°	766	741	703	687	686	215
25°	695	661	612	608	616	318
35°	527	503	471	482	488	329
45°	350	341	333	346	350	272
55°	222	217	215	222	223	200
65°	128	120	110	104	108	128
75°	57	48	30	24	24	61
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°	712.7	712.7	712.7	712.7	712.7	712.7	712.7	712.7	712.7
2.5°	723.2	721.3	718.5	714.6	710.7	707.9	706.9	706.0	706.0
5°	738.7	734.8	729.0	721.3	716.5	713.6	710.7	708.8	708.8
7.5°	749.3	745.4	736.8	726.2	719.4	713.6	709.8	706.9	706.9
10°	754.1	749.3	738.7	725.2	714.6	706.9	701.1	699.1	699.1
12.5°	759.9	754.1	739.6	722.3	708.8	699.1	693.5	691.5	691.5
15°	765.7	758.9	740.6	720.4	703.0	691.5	686.6	685.7	685.7
17.5°	762.7	754.1	732.9	708.8	689.6	678.0	673.2	673.2	674.1
20°	747.4	738.7	714.6	687.7	667.4	658.8	654.9	656.8	658.8
22.5°	724.3	713.6	687.7	661.6	640.5	632.7	632.7	635.6	638.5
25°	695.4	685.7	660.7	631.8	611.6	605.8	607.7	612.5	616.4
27.5°	662.6	652.0	626.0	599.1	578.8	575.9	580.8	587.5	589.4
30°	618.3	609.7	587.5	561.5	544.2	543.1	550.0	554.7	559.5
32.5°	575.9	566.3	545.1	520.1	507.6	508.5	516.2	522.0	524.8
35°	526.8	518.1	502.7	482.5	470.9	472.9	481.5	487.3	488.2
37.5°	480.6	474.8	459.3	444.0	435.4	439.1	446.8	453.7	453.7
40°	434.3	429.6	418.0	405.5	400.7	405.5	413.2	419.0	419.0
42.5°	390.0	387.1	377.5	368.8	366.0	372.7	379.4	384.3	383.3
45°	350.5	347.7	340.9	334.2	333.3	340.0	345.8	348.6	349.6
47.5°	314.9	313.0	307.2	302.4	302.4	309.2	313.9	316.9	317.8
50°	282.2	280.3	275.5	271.6	272.5	279.2	283.1	286.1	287.0
52.5°	249.5	248.4	244.6	239.8	242.7	247.5	252.3	254.2	255.3
55°	221.5	221.5	216.7	212.8	214.8	219.6	222.5	223.4	223.4
57.5°	196.5	195.5	189.8	185.9	186.8	191.7	193.6	194.5	194.5
60°	172.4	171.5	165.7	159.9	159.9	162.7	163.7	164.6	164.6
62.5°	149.3	148.3	141.6	136.8	134.8	133.8	133.8	135.8	139.6
65°	128.1	127.1	120.4	112.7	109.8	106.9	104.0	106.0	107.9
67.5°	108.8	106.9	100.2	93.5	86.6	81.9	77.1	79.9	83.8
70°	90.5	88.6	81.0	73.2	65.5	57.8	53.9	57.8	59.7
72.5°	73.2	71.3	63.6	55.8	46.3	38.5	37.5	38.5	39.5
75°	56.8	55.8	48.2	39.5	29.9	24.1	24.1	24.1	24.1
77.5°	42.4	40.5	32.7	25.0	17.3	13.5	12.5	12.5	12.5
80°	28.9	26.9	20.2	14.4	7.7	5.8	5.8	4.8	4.8
82.5°	16.4	15.5	10.6	5.8	2.8	1.9	1.9	1.9	1.9
85°	6.7	5.8	3.9	1.9	0.9	0.9	0.9	0.9	0.9
87.5°	0.9	0.9	0.9	0.0	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)