

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: P579844

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579844
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC415D010-HM40525827-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1349.8 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

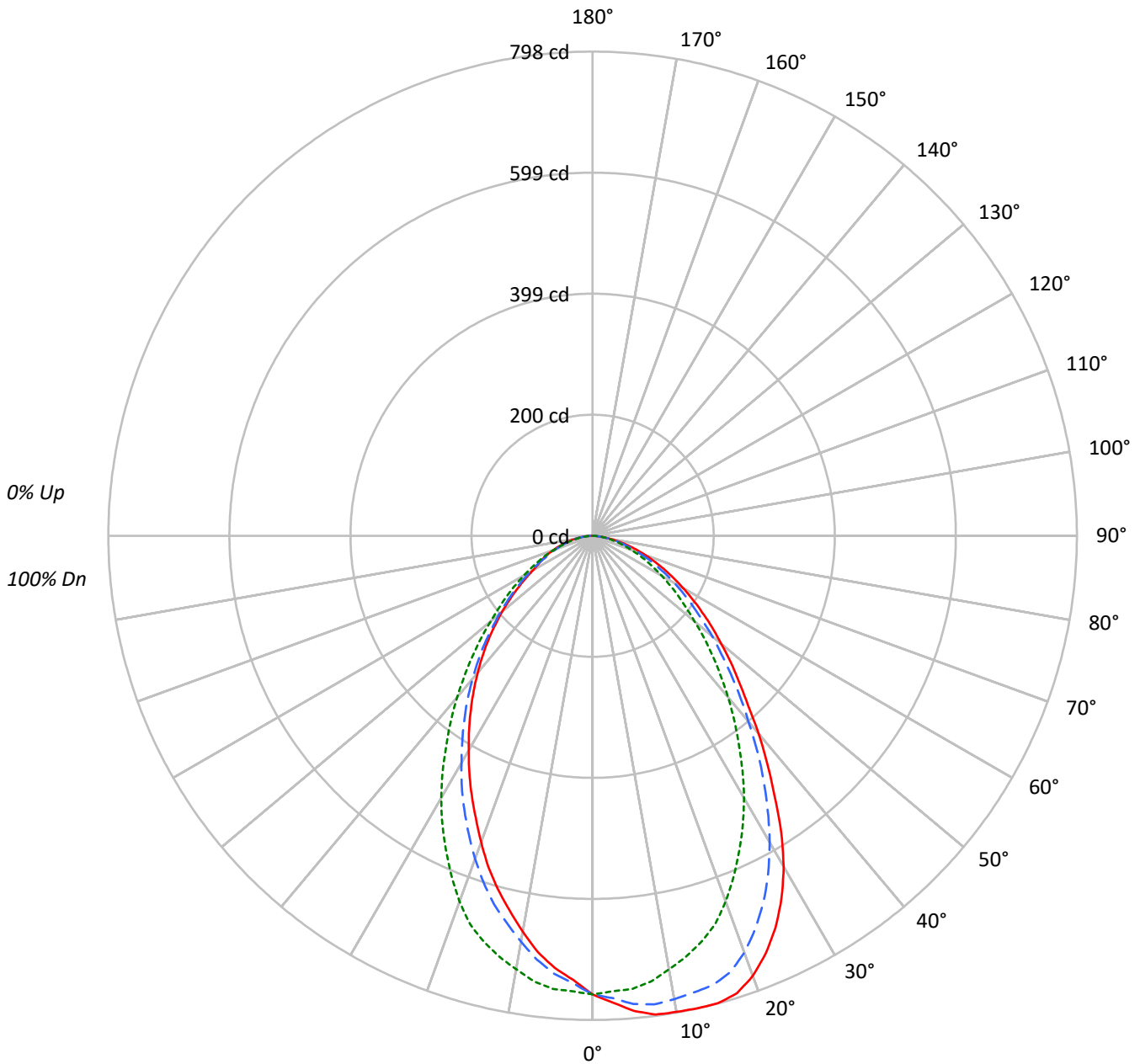
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P579844

CATALOG NUMBER: HC415D010-HM40525827-41WWW

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	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87			87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76			76
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66			66
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	69	61	56	67	60	55	65	59	54	63	58	54	52			52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47			47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	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	42	37	47	41	37	46	41	37	35			35
10	59	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°	93237	93237	93237
5°	97332	92813	88517
10°	99798	90880	82977
15°	101851	88468	77001
20°	101321	84165	70501
25°	97051	77820	64142
30°	89672	71057	58139
35°	78601	63197	52627
40°	68432	55840	47403
45°	59553	48703	42336
50°	53058	41986	37381
55°	47439	36902	32321
60°	42332	32267	27851
65°	37621	28281	26472
70°	33034	24343	24668
75°	27975	20731	22875
80°	21452	17687	20812
85°	12596	13869	17549



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.9	5.2
10°-20°	195.4	14.5
20°-30°	267.0	19.8
30°-40°	268.1	19.9
40°-50°	221.8	16.4
50°-60°	160.7	11.9
60°-70°	101.8	7.5
70°-80°	51.5	3.8
80°-90°	12.6	0.9
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°	533.3	39.5
0°-40°	801.4	59.4
0°-60°	1183.9	87.7
0°-90°	1349.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1349.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	756	756	756	756	756	
5°	786	774	750	725	715	75
15°	798	767	693	629	603	224
25°	713	666	572	500	471	326
35°	522	491	420	368	350	327
45°	341	322	279	252	243	266
55°	221	201	172	156	150	198
65°	129	115	97	87	91	128
75°	59	51	44	45	48	63
85°	9	9	10	12	12	12
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°	755.9	755.9	755.9	755.9	755.9	755.9	755.9	755.9	755.9
2.5°	770.1	767.4	762.9	757.6	751.4	744.3	738.0	734.5	732.7
5°	786.1	782.5	774.5	762.9	749.6	736.3	724.7	717.7	714.9
7.5°	795.9	790.6	779.0	761.2	740.8	721.2	704.3	694.5	691.9
10°	796.8	790.6	775.4	751.4	725.6	699.8	679.4	665.1	662.5
12.5°	797.6	789.6	771.0	742.6	710.5	678.4	653.5	636.7	632.3
15°	797.6	789.6	766.6	732.7	692.8	656.3	628.6	609.1	603.0
17.5°	790.6	781.7	754.1	714.9	671.4	630.5	598.5	578.1	571.8
20°	771.9	762.1	731.0	688.2	641.2	598.5	566.5	545.1	537.1
22.5°	745.2	733.6	700.7	654.5	607.4	563.7	532.7	510.4	503.3
25°	713.1	701.6	666.1	620.7	571.8	530.9	499.7	479.2	471.3
27.5°	674.0	661.6	626.9	581.6	536.2	495.3	466.9	448.2	440.1
30°	629.6	616.3	583.4	539.7	498.9	459.7	432.2	417.1	408.2
32.5°	578.1	566.5	537.1	498.0	459.7	422.4	399.3	385.9	378.8
35°	522.0	515.7	490.8	457.1	419.7	388.6	368.2	355.7	349.5
37.5°	472.2	465.9	444.6	416.1	383.3	354.9	337.9	327.2	321.9
40°	425.0	419.7	399.3	375.2	346.8	321.9	307.7	299.7	294.4
42.5°	378.8	376.1	359.3	337.0	312.1	290.7	279.2	273.0	268.6
45°	341.4	337.9	321.9	300.5	279.2	261.4	251.6	247.2	242.7
47.5°	308.6	304.1	287.2	268.6	249.0	233.0	224.1	219.7	217.8
50°	276.5	272.1	257.0	238.3	218.8	207.2	200.1	195.7	194.8
52.5°	248.1	243.7	226.7	209.0	193.9	184.1	177.8	173.4	171.6
55°	220.6	215.2	201.0	184.1	171.6	162.7	156.5	152.0	150.3
57.5°	195.7	190.3	177.8	161.8	150.3	142.2	136.9	132.5	130.8
60°	171.6	167.1	155.7	140.5	130.8	123.6	118.2	114.7	112.9
62.5°	149.4	145.9	134.3	121.0	112.9	106.8	102.2	98.7	100.5
65°	128.9	125.4	114.7	103.1	96.9	90.7	87.1	87.1	90.7
67.5°	109.4	105.9	96.9	87.1	81.9	77.3	74.7	77.3	80.0
70°	91.6	88.0	80.0	72.0	67.5	64.0	64.0	66.7	68.4
72.5°	74.7	71.2	64.9	58.7	55.1	52.4	55.1	57.0	58.7
75°	58.7	56.1	50.7	46.3	43.5	42.6	45.4	47.2	48.0
77.5°	43.5	41.8	38.2	34.7	32.9	33.8	36.5	37.3	38.2
80°	30.2	29.3	26.7	24.9	24.9	25.8	27.5	28.4	29.3
82.5°	18.6	18.6	16.9	16.0	16.9	18.6	19.6	20.5	20.5
85°	8.9	9.8	8.9	8.9	9.8	11.6	11.6	12.4	12.4
87.5°	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4	5.3
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)