

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: P579860

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579860
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-HM40525830-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1477.4 lumens
Efficiency: N/A
Efficacy: 105.5 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

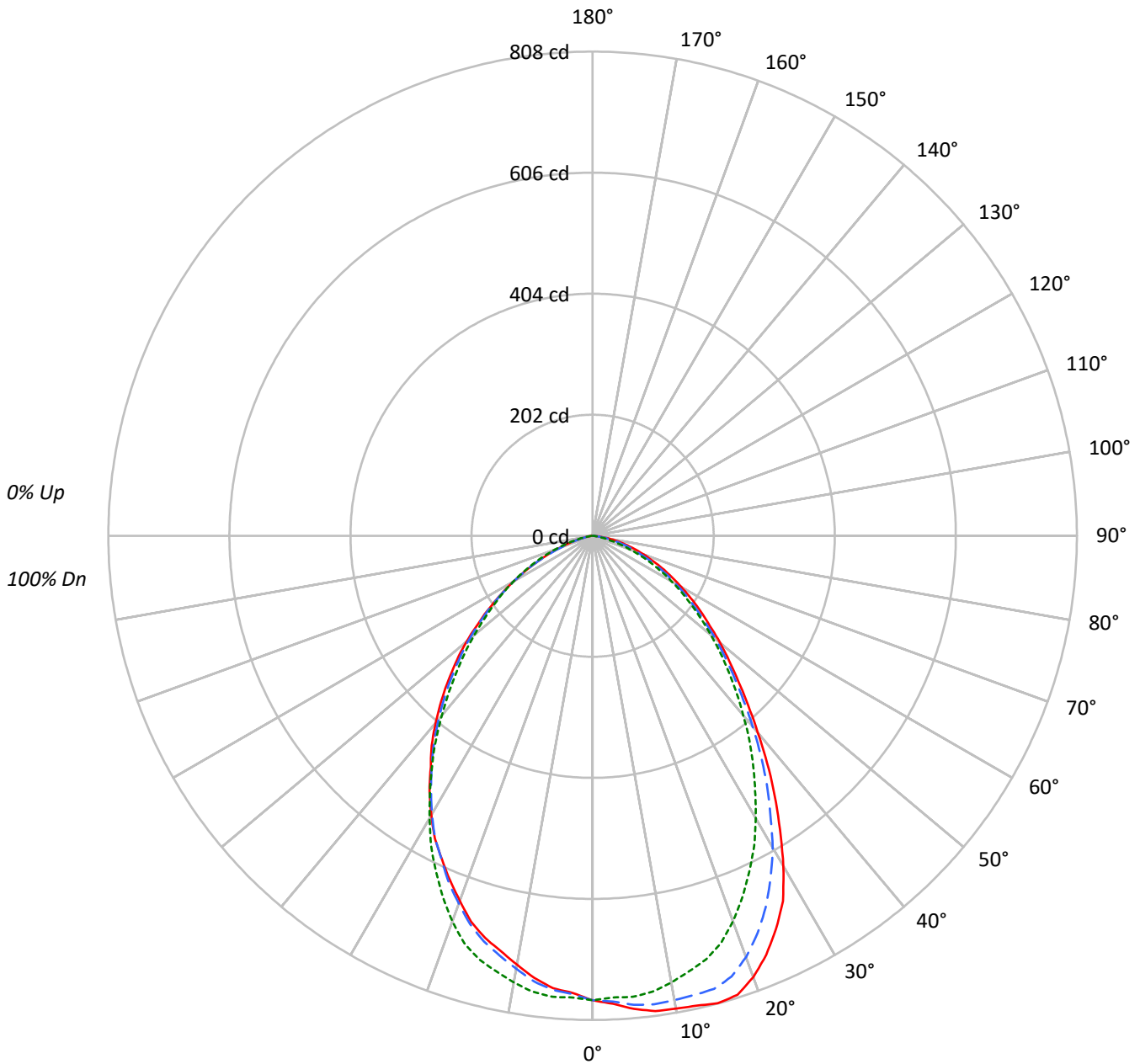
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	95605	95605	95605
5°	98125	95624	93828
10°	100337	94788	91056
15°	103153	93449	88660
20°	102870	89862	85058
25°	98534	84135	80991
30°	90655	77495	76669
35°	79746	70320	70892
40°	68995	62941	65582
45°	59954	55925	59274
50°	53212	49335	52674
55°	47224	43267	45138
60°	42036	37522	37522
65°	37358	31200	29244
70°	32313	23622	20845
75°	27069	15584	12820
80°	20528	7529	6890
85°	10897	2689	2689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	5.0
10°-20°	208.1	14.1
20°-30°	293.5	19.9
30°-40°	303.2	20.5
40°-50°	257.0	17.4
50°-60°	187.0	12.7
60°-70°	109.3	7.4
70°-80°	40.6	2.7
80°-90°	5.3	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°	575.0	38.9
0°-40°	878.2	59.4
0°-60°	1322.2	89.5
0°-90°	1477.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1477.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	775	775	775	775	775	
5°	792	786	772	761	758	76
15°	808	783	732	701	694	227
25°	724	684	618	596	595	331
35°	530	506	467	468	471	331
45°	344	334	321	332	340	267
55°	220	209	201	208	210	197
65°	128	118	107	100	100	127
75°	57	47	33	26	27	61
85°	8	5	2	2	2	11
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°	775.1	775.1	775.1	775.1	775.1	775.1	775.1	775.1	775.1
2.5°	781.9	780.0	778.0	775.1	771.2	768.4	765.5	763.6	763.6
5°	792.5	789.5	785.7	779.0	772.3	766.5	760.7	757.8	757.8
7.5°	800.1	796.4	788.6	779.0	767.5	758.7	750.1	746.2	744.3
10°	801.1	797.3	786.7	772.3	756.8	743.4	733.7	727.9	727.0
12.5°	803.1	798.3	784.8	764.5	744.3	727.9	717.3	711.5	709.6
15°	807.8	801.1	782.8	756.8	731.8	712.6	701.0	696.2	694.3
17.5°	803.1	793.4	771.2	740.4	712.6	691.4	679.8	675.0	675.0
20°	783.7	774.2	748.1	714.5	684.6	664.3	652.9	649.9	648.0
22.5°	756.8	746.2	718.4	682.7	652.9	634.6	626.8	623.0	622.1
25°	724.0	713.5	683.7	647.1	618.2	602.7	596.0	596.0	595.1
27.5°	687.5	674.0	643.2	611.5	583.5	571.9	569.1	569.1	570.0
30°	636.5	626.8	600.8	570.0	544.1	536.3	536.3	538.3	538.3
32.5°	581.6	574.9	551.8	524.7	504.6	499.7	501.6	505.5	506.5
35°	529.6	521.9	506.5	482.4	467.0	465.0	468.0	470.8	470.8
37.5°	478.6	470.8	460.3	441.0	429.4	430.4	434.2	438.1	441.0
40°	428.5	422.7	415.0	399.5	390.9	394.8	399.5	403.4	407.3
42.5°	384.2	378.4	372.6	361.1	355.3	360.1	365.9	369.8	373.6
45°	343.7	339.8	334.2	324.5	320.6	325.4	332.2	336.1	339.8
47.5°	309.0	307.2	299.5	290.8	288.9	293.7	299.5	304.3	307.2
50°	277.3	274.5	267.6	259.0	257.1	264.8	268.7	271.5	274.5
52.5°	246.5	243.7	235.9	228.2	228.2	234.0	236.8	237.9	240.7
55°	219.6	216.6	209.0	203.2	201.2	206.0	208.0	208.0	209.9
57.5°	194.5	191.6	184.0	177.1	176.2	179.1	179.1	179.1	180.1
60°	170.4	167.6	159.9	154.1	152.1	153.2	152.1	151.2	152.1
62.5°	148.3	145.4	137.7	131.0	129.0	129.0	126.1	125.2	126.1
65°	128.0	123.3	117.5	110.7	106.9	104.0	100.2	100.2	100.2
67.5°	107.8	104.0	97.2	90.5	85.7	80.8	75.2	77.0	78.0
70°	89.6	86.6	78.9	72.2	65.5	59.7	54.9	56.8	57.8
72.5°	73.2	69.4	62.5	54.9	49.1	41.4	38.5	40.5	40.5
75°	56.8	53.0	47.2	39.5	32.7	26.0	26.0	26.9	26.9
77.5°	42.4	38.5	32.7	26.0	20.2	15.3	16.4	16.4	16.4
80°	28.9	26.0	21.1	15.3	10.6	8.6	8.6	8.6	9.7
82.5°	16.4	14.4	11.6	7.7	4.8	4.8	4.8	4.8	4.8
85°	7.7	5.8	4.8	2.8	1.9	1.9	1.9	1.9	1.9
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)