

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: P579734

Luminaire Tested: **HC410D010-HM40525835-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579734
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: HC410D010-HM40525835-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1126.3 lumens
Efficiency: N/A
Efficacy: 113.8 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

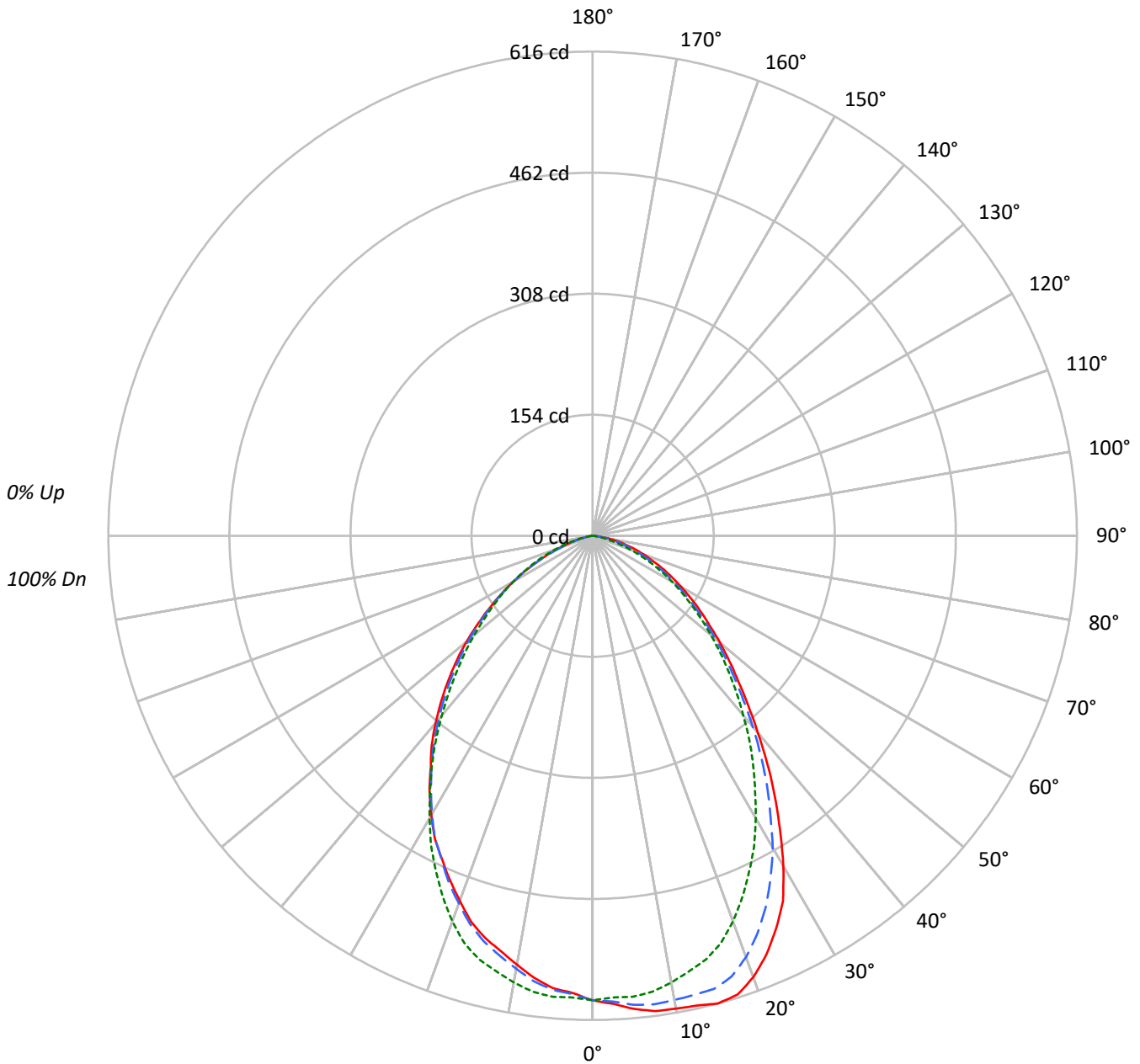
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	72897	72897	72897
5°	74810	72891	71541
10°	76502	72268	69413
15°	78648	71229	67590
20°	78442	68505	64843
25°	75125	64129	61734
30°	69106	59079	58452
35°	60803	53621	54042
40°	52604	47983	50012
45°	45720	42632	45197
50°	40566	37611	40144
55°	35999	32988	34407
60°	32070	28616	28616
65°	28486	23787	22298
70°	24632	18032	15868
75°	20683	11867	9817
80°	15698	5754	5256
85°	8350	2123	2123



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.0	5.0
10°-20°	158.7	14.1
20°-30°	223.7	19.9
30°-40°	231.1	20.5
40°-50°	195.9	17.4
50°-60°	142.6	12.7
60°-70°	83.3	7.4
70°-80°	31.0	2.7
80°-90°	4.0	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°	438.4	38.9
0°-40°	669.5	59.4
0°-60°	1008.0	89.5
0°-90°	1126.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1126.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	591	591	591	591	591	
5°	604	599	589	580	578	58
15°	616	597	558	534	529	173
25°	552	521	471	454	454	252
35°	404	386	356	357	359	252
45°	262	255	244	253	259	204
55°	167	159	153	158	160	151
65°	98	90	82	76	76	97
75°	43	36	25	20	21	47
85°	6	4	2	2	2	8
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°	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
2.5°	596.1	594.6	593.1	591.0	588.0	585.8	583.6	582.1	582.1
5°	604.2	601.9	599.0	593.9	588.7	584.4	579.9	577.8	577.8
7.5°	610.0	607.1	601.2	593.9	585.0	578.4	571.8	568.9	567.4
10°	610.8	607.8	599.7	588.7	577.0	566.7	559.3	555.0	554.2
12.5°	612.2	608.6	598.2	582.9	567.4	555.0	546.9	542.5	541.0
15°	615.9	610.8	596.8	577.0	557.8	543.2	534.4	530.8	529.3
17.5°	612.2	604.8	588.0	564.4	543.2	527.1	518.2	514.6	514.6
20°	597.6	590.2	570.4	544.6	521.9	506.5	497.6	495.5	494.0
22.5°	577.0	568.9	547.6	520.4	497.6	483.8	477.8	475.0	474.2
25°	552.0	544.0	521.2	493.3	471.2	459.5	454.4	454.4	453.6
27.5°	524.2	513.8	490.4	466.1	444.8	436.1	433.8	433.8	434.6
30°	485.2	477.8	458.0	434.6	414.8	408.9	408.9	410.4	410.4
32.5°	443.4	438.2	420.6	400.1	384.6	381.0	382.5	385.4	386.1
35°	403.8	397.8	386.1	367.8	356.1	354.6	356.8	358.9	358.9
37.5°	364.8	358.9	350.8	336.2	327.4	328.1	331.0	334.0	336.2
40°	326.7	322.3	316.4	304.6	298.0	301.0	304.6	307.6	310.6
42.5°	292.9	288.5	284.0	275.3	270.8	274.6	278.9	281.9	284.8
45°	262.1	259.1	254.7	247.4	244.4	248.1	253.2	256.2	259.1
47.5°	235.7	234.2	228.3	221.7	220.2	223.8	228.3	231.9	234.2
50°	211.4	209.2	204.0	197.4	196.0	201.9	204.8	207.0	209.2
52.5°	187.9	185.7	179.8	174.0	174.0	178.3	180.6	181.3	183.6
55°	167.4	165.1	159.3	154.9	153.4	157.0	158.5	158.5	160.0
57.5°	148.3	146.1	140.2	135.1	134.3	136.6	136.6	136.6	137.2
60°	130.0	127.7	121.9	117.4	116.0	116.8	116.0	115.3	116.0
62.5°	113.0	110.8	104.9	99.8	98.3	98.3	96.2	95.5	96.2
65°	97.6	94.0	89.6	84.4	81.5	79.3	76.4	76.4	76.4
67.5°	82.2	79.3	74.2	69.0	65.3	61.7	57.2	58.7	59.4
70°	68.3	66.1	60.2	55.1	50.0	45.5	41.9	43.4	44.0
72.5°	55.8	52.8	47.7	41.9	37.4	31.5	29.4	30.8	30.8
75°	43.4	40.4	36.0	30.0	24.9	19.8	19.8	20.6	20.6
77.5°	32.3	29.4	24.9	19.8	15.4	11.7	12.5	12.5	12.5
80°	22.1	19.8	16.2	11.7	8.1	6.6	6.6	6.6	7.4
82.5°	12.5	11.0	8.8	5.9	3.6	3.6	3.6	3.6	3.6
85°	5.9	4.4	3.6	2.2	1.5	1.5	1.5	1.5	1.5
87.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)