

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: P579788

Luminaire Tested: **HC410D010-HM40525930-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579788
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-HM40525930-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 954.9 lumens
Efficiency: N/A
Efficacy: 96.5 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

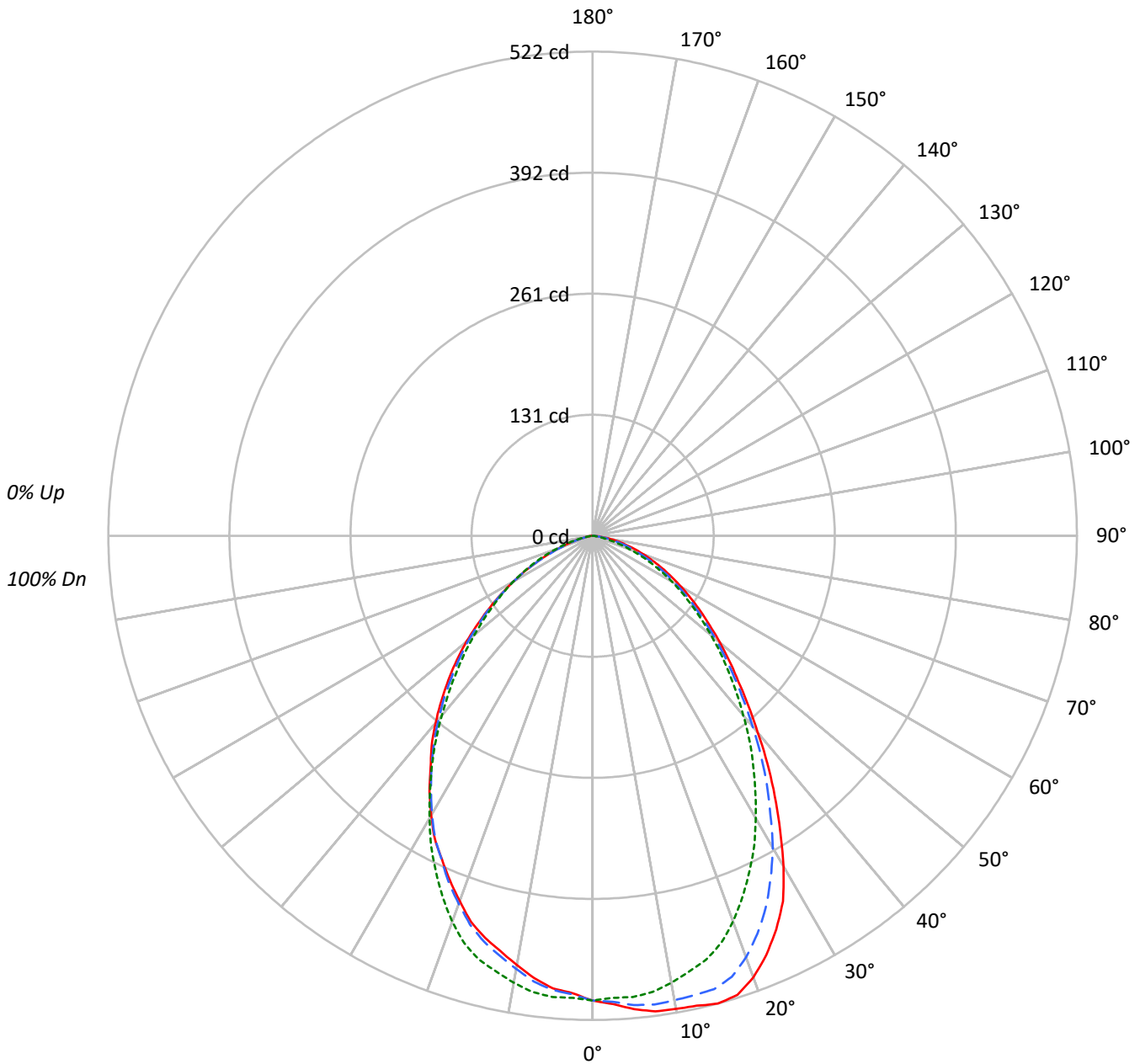
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	61808	61808	61808
5°	63419	61797	60645
10°	64854	61272	58854
15°	66670	60401	57298
20°	66497	58083	54986
25°	63707	54384	52343
30°	58595	50077	49550
35°	51543	45444	45821
40°	44602	40673	42379
45°	38742	36143	38324
50°	34387	31873	34042
55°	30515	27978	29160
60°	27185	24250	24250
65°	24137	20168	18913
70°	20881	15255	13452
75°	17538	10103	8292
80°	13283	4830	4475
85°	7076	1840	1840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	5.0
10°-20°	134.5	14.1
20°-30°	189.7	19.9
30°-40°	196.0	20.5
40°-50°	166.1	17.4
50°-60°	120.9	12.7
60°-70°	70.6	7.4
70°-80°	26.3	2.7
80°-90°	3.4	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°	371.7	38.9
0°-40°	567.6	59.4
0°-60°	854.6	89.5
0°-90°	954.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	954.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	501	501	501	501	501	
5°	512	508	499	492	490	49
15°	522	506	473	453	449	147
25°	468	442	400	385	385	214
35°	342	327	302	302	304	214
45°	222	216	207	215	220	173
55°	142	135	130	134	136	128
65°	83	76	69	65	65	82
75°	37	30	21	17	17	39
85°	5	3	1	1	1	7
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°	501.1	501.1	501.1	501.1	501.1	501.1	501.1	501.1	501.1
2.5°	505.4	504.1	502.9	501.1	498.6	496.6	494.8	493.6	493.6
5°	512.2	510.4	507.9	503.5	499.1	495.4	491.6	489.8	489.8
7.5°	517.2	514.7	509.7	503.5	496.1	490.5	484.8	482.3	481.1
10°	517.8	515.3	508.5	499.1	489.2	480.5	474.2	470.6	469.9
12.5°	519.0	516.0	507.2	494.1	481.1	470.6	463.6	460.0	458.7
15°	522.1	517.8	506.0	489.2	473.0	460.5	453.0	450.0	448.7
17.5°	519.0	512.8	498.6	478.6	460.5	446.9	439.4	436.3	436.3
20°	506.6	500.4	483.5	461.8	442.5	429.5	422.0	420.1	418.9
22.5°	489.2	482.3	464.3	441.2	422.0	410.1	405.1	402.6	402.1
25°	468.1	461.2	441.9	418.2	399.6	389.7	385.2	385.2	384.6
27.5°	444.4	435.6	415.7	395.2	377.1	369.7	367.8	367.8	368.5
30°	411.4	405.1	388.4	368.5	351.6	346.6	346.6	347.9	347.9
32.5°	375.9	371.6	356.6	339.2	326.2	323.0	324.2	326.7	327.4
35°	342.3	337.3	327.4	311.8	301.8	300.7	302.5	304.3	304.3
37.5°	309.3	304.3	297.5	285.1	277.6	278.2	280.7	283.1	285.1
40°	277.0	273.2	268.2	258.3	252.6	255.1	258.3	260.7	263.2
42.5°	248.3	244.6	240.8	233.4	229.6	232.7	236.5	239.0	241.5
45°	222.1	219.7	216.0	209.7	207.2	210.4	214.7	217.2	219.7
47.5°	199.8	198.6	193.6	188.0	186.7	189.8	193.6	196.6	198.6
50°	179.2	177.4	173.0	167.4	166.1	171.2	173.7	175.5	177.4
52.5°	159.3	157.5	152.5	147.5	147.5	151.2	153.1	153.7	155.6
55°	141.9	140.1	135.1	131.3	130.1	133.1	134.4	134.4	135.6
57.5°	125.7	123.8	118.9	114.5	113.9	115.7	115.7	115.7	116.4
60°	110.2	108.3	103.3	99.6	98.3	99.0	98.3	97.8	98.3
62.5°	95.8	94.0	89.0	84.7	83.4	83.4	81.5	80.9	81.5
65°	82.7	79.7	75.9	71.6	69.1	67.3	64.8	64.8	64.8
67.5°	69.8	67.3	62.8	58.5	55.4	52.2	48.6	49.8	50.4
70°	57.9	56.0	51.0	46.7	42.3	38.6	35.5	36.8	37.3
72.5°	47.3	44.8	40.4	35.5	31.8	26.7	24.9	26.2	26.2
75°	36.8	34.3	30.5	25.5	21.2	16.8	16.8	17.4	17.4
77.5°	27.4	24.9	21.2	16.8	13.1	10.0	10.6	10.6	10.6
80°	18.7	16.8	13.7	10.0	6.8	5.6	5.6	5.6	6.3
82.5°	10.6	9.3	7.5	5.0	3.1	3.1	3.1	3.1	3.1
85°	5.0	3.8	3.1	1.8	1.3	1.3	1.3	1.3	1.3
87.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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)