

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: P579791

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579791
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC410D010-HM40525930-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 940.6 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

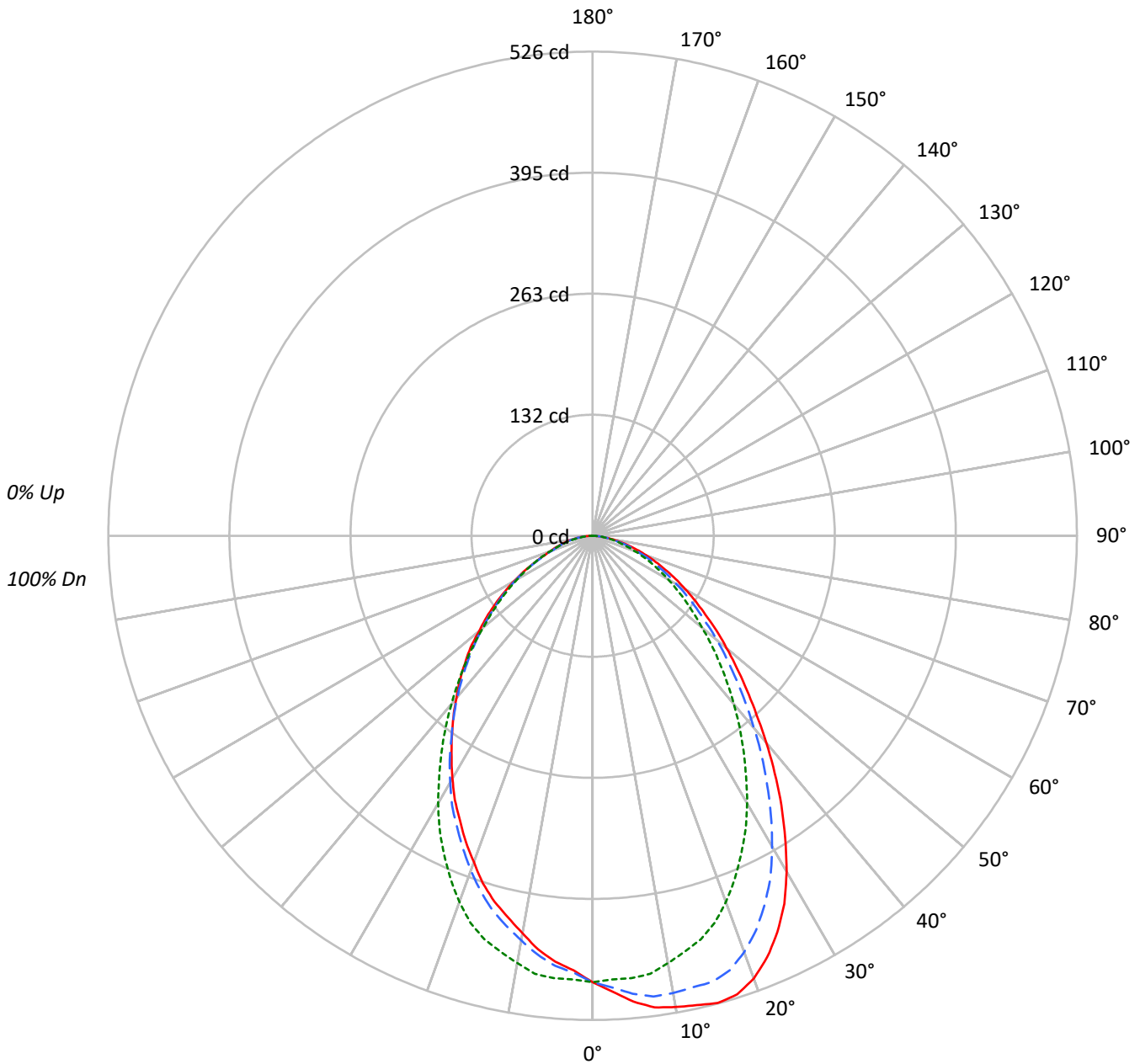
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58								
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51								
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46								
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	59823	59823	59823
5°	62899	59742	57501
10°	65104	59042	54909
15°	67105	57949	52547
20°	67180	55563	49512
25°	64646	51948	46436
30°	60033	47799	43355
35°	53801	43035	40129
40°	47226	38386	37082
45°	41272	33980	34207
50°	36440	29743	30837
55°	32128	26386	27719
60°	28715	23362	24250
65°	25450	20518	20518
70°	22251	17527	17527
75°	18968	14869	16585
80°	15059	13283	15059
85°	9624	11463	14152



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.0	4.9
10°-20°	129.4	13.8
20°-30°	181.3	19.3
30°-40°	186.8	19.9
40°-50°	159.0	16.9
50°-60°	117.8	12.5
60°-70°	73.9	7.9
70°-80°	36.7	3.9
80°-90°	9.6	1.0
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°	356.7	37.9
0°-40°	543.4	57.8
0°-60°	820.3	87.2
0°-90°	940.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	940.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	485	485	485	485	485	
5°	508	499	482	469	464	49
15°	526	502	454	421	412	148
25°	475	442	382	349	341	217
35°	357	331	286	267	266	223
45°	237	220	195	191	196	184
55°	149	138	123	125	129	135
65°	87	78	70	69	70	87
75°	40	36	31	34	35	43
85°	7	7	8	9	10	9
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°	485.0	485.0	485.0	485.0	485.0	485.0	485.0	485.0	485.0
2.5°	495.6	493.8	491.3	486.8	482.5	478.8	475.0	473.2	472.6
5°	508.0	504.4	499.4	491.3	482.5	475.0	468.9	465.7	464.4
7.5°	516.8	513.0	504.9	492.5	480.0	468.9	458.8	454.5	453.3
10°	519.8	515.5	504.4	487.5	471.4	457.6	446.4	440.9	438.4
12.5°	522.3	516.8	502.4	482.5	462.6	445.8	433.9	426.5	424.6
15°	525.5	519.3	501.9	477.5	453.8	433.9	420.8	414.0	411.5
17.5°	522.3	515.5	495.0	467.6	440.9	419.0	404.7	398.5	396.0
20°	511.8	504.4	481.3	452.0	423.3	400.9	386.7	380.4	377.2
22.5°	495.6	487.5	463.8	432.7	403.4	381.7	367.9	361.8	359.8
25°	475.0	466.9	442.0	410.2	381.7	360.5	348.7	343.1	341.2
27.5°	450.8	442.7	418.4	387.3	359.8	339.9	330.6	325.0	323.8
30°	421.5	413.4	389.8	361.1	335.6	316.9	309.4	305.1	304.4
32.5°	389.1	382.3	360.5	334.3	310.1	294.5	288.9	285.8	285.2
35°	357.3	349.9	330.6	306.9	285.8	272.1	267.1	266.5	266.5
37.5°	325.0	317.5	301.9	280.2	262.1	249.7	247.9	248.4	248.4
40°	293.3	286.4	272.7	254.7	238.4	229.1	228.5	229.8	230.3
42.5°	263.3	257.8	245.4	229.8	216.0	208.6	209.2	211.7	213.6
45°	236.6	231.6	220.4	206.7	194.8	189.2	191.2	194.3	196.1
47.5°	212.4	207.9	197.3	184.9	174.9	171.3	173.7	177.4	179.9
50°	189.9	186.2	176.2	163.1	155.0	152.5	155.7	159.4	160.7
52.5°	170.0	166.3	155.7	144.4	138.3	137.0	140.1	143.2	145.1
55°	149.4	146.3	137.6	127.7	122.7	122.0	125.2	127.7	128.9
57.5°	132.6	129.5	121.4	112.7	108.3	107.8	110.8	112.7	113.3
60°	116.4	113.3	105.8	97.8	94.7	94.7	96.5	97.8	98.3
62.5°	101.5	98.3	91.5	84.7	82.2	82.2	82.2	82.8	84.7
65°	87.2	84.7	78.4	72.3	70.3	69.1	69.1	69.1	70.3
67.5°	74.1	71.6	66.6	61.0	59.2	57.2	56.7	57.9	57.9
70°	61.7	59.7	54.7	50.4	48.6	46.7	46.1	48.6	48.6
72.5°	50.4	48.6	45.4	41.1	39.3	38.6	39.8	41.1	41.8
75°	39.8	38.0	35.5	33.0	31.2	31.8	33.6	34.3	34.8
77.5°	29.9	29.2	26.7	24.9	24.9	25.5	26.7	28.0	28.7
80°	21.2	20.6	19.3	18.1	18.7	19.9	20.6	21.7	21.2
82.5°	13.1	13.1	12.4	12.4	13.1	14.3	14.9	15.6	16.2
85°	6.8	6.8	6.8	7.5	8.1	8.8	9.3	10.0	10.0
87.5°	1.8	2.5	2.5	3.1	3.8	3.8	4.3	4.3	4.3
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)