

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: P579771

Luminaire Tested: **HC410D010-HM40525927-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579771
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC410D010-HM40525927-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 679.3 lumens
Efficiency: N/A
Efficacy: 68.6 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

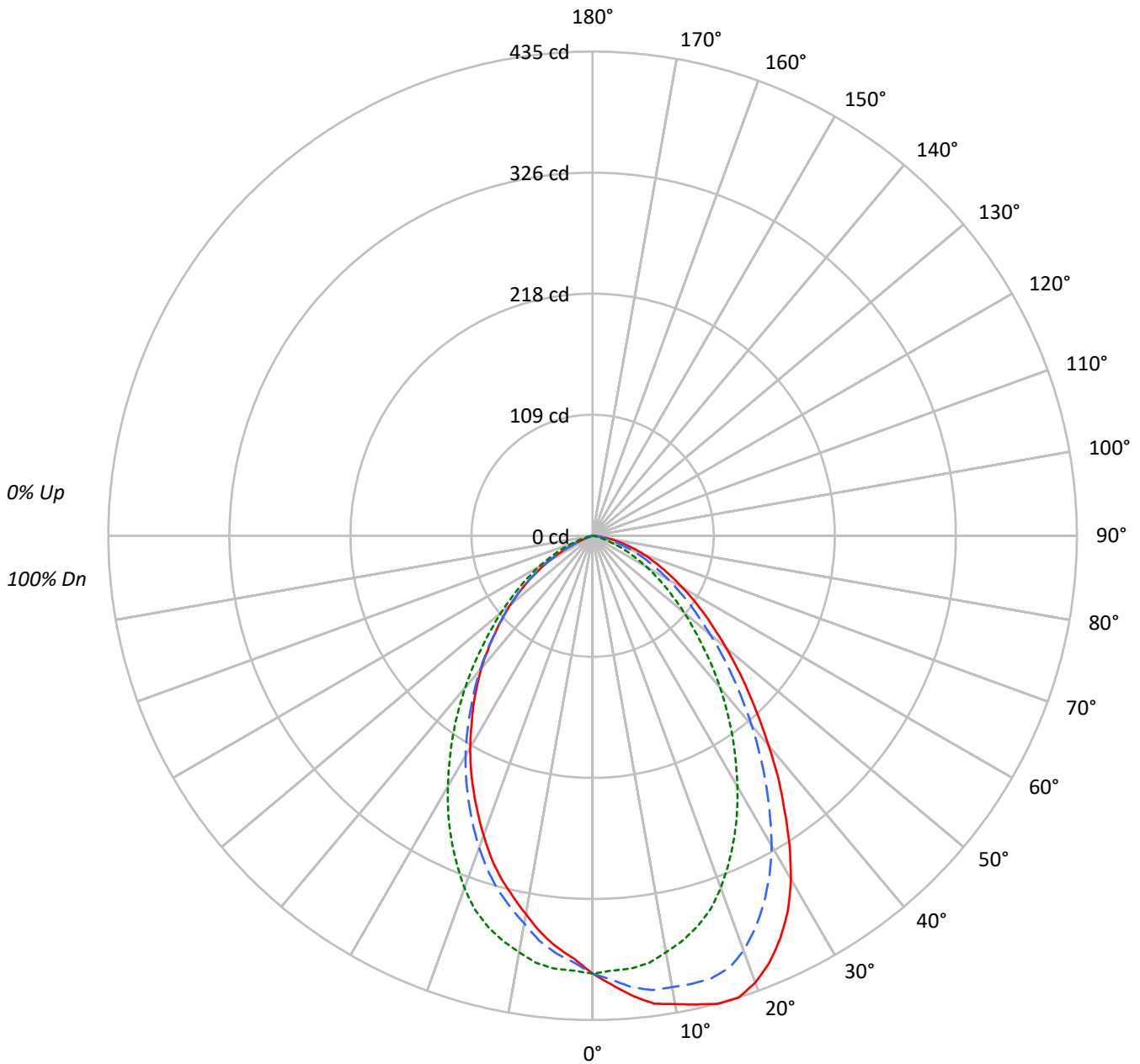
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89																			
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78																			
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69																			
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61																			
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55																			
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49																			
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44																			
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40																			
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37																			
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	48512	48512	48512
5°	51384	48338	45924
10°	53519	47582	43236
15°	55574	46431	40646
20°	56088	44196	37593
25°	54289	40883	34419
30°	50747	37045	31320
35°	45233	32931	28143
40°	39546	28645	25054
45°	34434	24299	21665
50°	30050	20609	18556
55°	26322	17075	15032
60°	23041	13815	11027
65°	20080	10303	6217
70°	17563	6636	2020
75°	14392	3479	524
80°	10726	1634	426
85°	6227	849	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	5.5
10°-20°	103.9	15.3
20°-30°	143.6	21.1
30°-40°	144.4	21.3
40°-50°	116.5	17.2
50°-60°	78.8	11.6
60°-70°	40.1	5.9
70°-80°	12.8	1.9
80°-90°	2.0	0.3
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°	284.6	41.9
0°-40°	429.0	63.2
0°-60°	624.3	91.9
0°-90°	679.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	679.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	393	393	393	393	393	
5°	415	407	390	376	371	40
15°	435	412	364	329	318	123
25°	399	364	300	263	253	183
35°	300	271	219	191	187	188
45°	197	177	139	124	124	153
55°	122	106	79	69	70	110
65°	69	56	35	23	21	69
75°	30	21	7	2	1	33
85°	4	2	1	1	1	6
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°	393.3	393.3	393.3	393.3	393.3	393.3	393.3	393.3	393.3
2.5°	403.9	401.6	399.4	395.5	391.0	386.6	383.7	381.5	380.4
5°	415.0	412.3	407.2	398.9	390.4	382.6	376.5	372.6	370.9
7.5°	424.0	420.1	411.7	400.0	387.1	374.7	367.0	361.3	359.2
10°	427.3	422.9	411.7	396.0	379.9	364.7	353.6	347.9	345.2
12.5°	431.3	426.3	412.3	392.7	372.6	354.6	341.7	334.5	331.7
15°	435.2	428.5	411.7	387.6	363.6	342.9	328.9	321.6	318.3
17.5°	435.2	427.3	407.2	379.3	351.9	330.0	314.4	306.0	303.2
20°	427.3	418.4	396.6	365.9	336.7	313.3	298.2	289.7	286.4
22.5°	415.0	405.0	381.5	349.6	318.9	295.9	280.9	273.0	269.6
25°	398.9	388.7	364.2	331.2	300.4	277.4	263.4	256.2	252.9
27.5°	379.9	368.6	344.0	311.0	280.9	259.0	246.1	239.4	236.6
30°	356.3	345.7	321.6	289.2	260.1	240.0	228.3	222.0	219.9
32.5°	328.9	320.0	296.4	266.3	238.9	220.4	209.7	204.7	202.5
35°	300.4	292.0	271.3	243.3	218.7	201.4	191.3	188.0	186.9
37.5°	273.6	266.3	246.1	220.4	198.0	182.9	174.0	171.7	170.6
40°	245.6	240.6	222.0	198.6	177.9	164.4	157.2	155.6	155.6
42.5°	220.4	214.9	198.6	177.3	158.9	145.4	140.4	138.7	139.3
45°	197.4	191.9	176.7	157.2	139.3	128.1	124.2	124.2	124.2
47.5°	176.2	171.2	157.2	137.0	122.4	113.6	109.6	109.6	110.2
50°	156.6	153.3	137.6	120.3	107.4	99.0	96.2	95.7	96.7
52.5°	138.2	134.3	120.3	104.6	92.3	85.6	82.7	82.3	82.7
55°	122.4	118.0	105.7	90.6	79.4	72.7	69.4	68.8	69.9
57.5°	107.4	104.0	91.2	77.7	67.1	60.4	57.6	56.4	57.0
60°	93.4	90.0	78.3	65.4	56.0	49.3	45.3	44.2	44.7
62.5°	80.6	77.7	66.6	54.3	44.7	38.6	34.7	31.9	33.0
65°	68.8	66.0	56.0	43.6	35.3	28.6	23.0	20.7	21.3
67.5°	58.7	55.4	45.9	34.7	26.3	19.0	12.9	11.7	11.7
70°	48.7	45.3	36.9	26.9	18.4	10.0	5.6	5.6	5.6
72.5°	39.1	36.4	28.6	20.1	11.7	4.4	2.3	2.3	2.3
75°	30.2	28.0	21.3	14.0	7.3	2.3	1.7	1.1	1.1
77.5°	22.4	20.1	15.1	9.6	4.4	1.1	1.1	1.1	1.1
80°	15.1	13.4	10.0	5.6	2.3	0.6	0.6	0.6	0.6
82.5°	9.0	7.9	5.6	2.8	1.1	0.6	0.6	0.6	0.6
85°	4.4	3.3	2.3	1.1	0.6	0.6	0.6	0.6	0.6
87.5°	1.1	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
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)