

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: P592619

Luminaire Tested: **HC410D010-HM40525850-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592619
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-HM40525850-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1140.1 lumens
Efficiency: N/A
Efficacy: 115.2 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

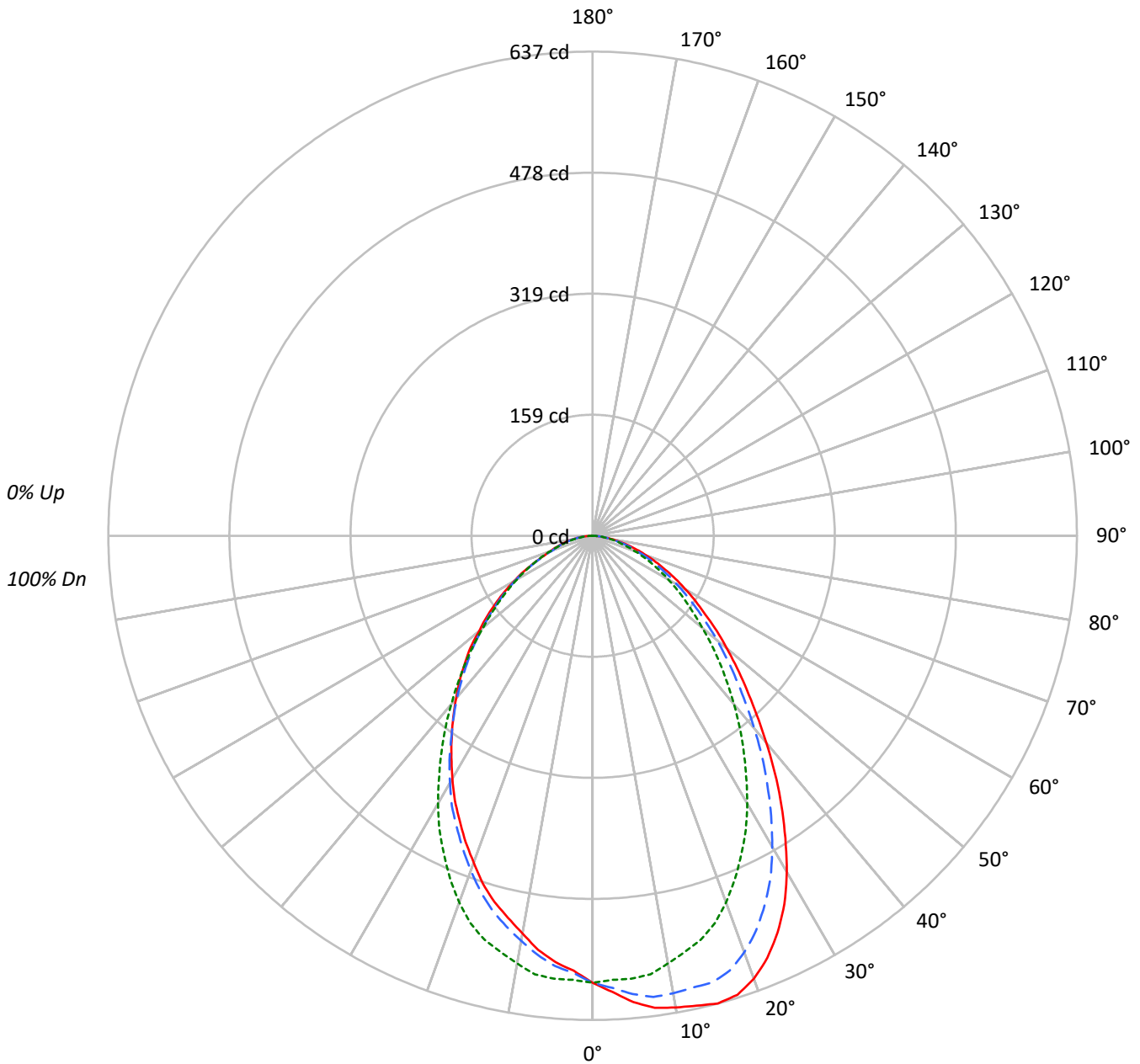
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P592619

CATALOG NUMBER: HC410D010-HM40525850-41WWWB

Luminous Intensity Polar Plot





TEST NUMBER: P592619

CATALOG NUMBER: HC410D010-HM40525850-41WWWB

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°	72515	72515	72515
5°	76246	72408	69709
10°	78919	71554	66532
15°	81330	70246	63695
20°	81422	67350	60039
25°	78365	62958	56276
30°	72752	57925	52570
35°	65215	52160	48636
40°	57225	46550	44972
45°	50029	41202	41464
50°	44173	36056	37361
55°	38966	31956	33590
60°	34808	28295	29430
65°	30820	24867	24867
70°	26940	21206	21206
75°	23018	18014	20111
80°	18184	16053	18184
85°	11746	13869	17124



TEST NUMBER: P592619

CATALOG NUMBER: HC410D010-HM40525850-41WWWB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.7	4.9
10°-20°	156.9	13.8
20°-30°	219.7	19.3
30°-40°	226.4	19.9
40°-50°	192.7	16.9
50°-60°	142.8	12.5
60°-70°	89.6	7.9
70°-80°	44.5	3.9
80°-90°	11.7	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°	432.3	37.9
0°-40°	658.7	57.8
0°-60°	994.2	87.2
0°-90°	1140.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1140.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	588	588	588	588	588	
5°	616	605	585	568	563	59
15°	637	608	550	510	499	179
25°	576	536	463	423	414	263
35°	433	401	346	324	323	270
45°	287	267	236	232	238	223
55°	181	167	149	152	156	164
65°	106	95	85	84	85	105
75°	48	43	38	41	42	52
85°	8	8	10	11	12	11
90°	0	0	0	0	0	



TEST NUMBER: P592619

CATALOG NUMBER: HC410D010-HM40525850-41WWWB

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	587.9	587.9	587.9	587.9	587.9	587.9	587.9	587.9	587.9
2.5°	600.8	598.5	595.4	590.2	584.8	580.3	575.8	573.6	572.8
5°	615.8	611.2	605.2	595.4	584.8	575.8	568.2	564.4	563.0
7.5°	626.4	621.8	612.0	596.9	581.9	568.2	556.1	550.9	549.4
10°	630.1	624.9	611.2	590.8	571.3	554.7	541.1	534.3	531.2
12.5°	633.2	626.4	608.9	584.8	560.7	540.3	526.0	516.9	514.7
15°	636.9	629.4	608.3	578.8	550.1	526.0	510.2	501.9	498.8
17.5°	633.2	624.9	600.0	566.7	534.3	507.9	490.5	483.0	480.0
20°	620.3	611.2	583.3	547.8	513.1	486.0	468.6	461.1	457.4
22.5°	600.8	590.8	562.2	524.5	489.0	462.6	446.0	438.5	436.2
25°	575.8	565.9	535.8	497.3	462.6	437.0	422.7	415.8	413.5
27.5°	546.4	536.6	507.1	469.4	436.2	412.1	400.7	394.0	392.4
30°	510.8	501.1	472.4	437.7	406.7	384.1	375.1	369.7	369.1
32.5°	471.7	463.4	437.0	405.2	375.8	357.0	350.2	346.4	345.6
35°	433.1	424.1	400.7	372.0	346.4	329.8	323.8	323.0	323.0
37.5°	394.0	384.9	366.0	339.6	317.7	302.6	300.3	301.1	301.1
40°	355.4	347.1	330.6	308.6	289.1	277.7	277.0	278.5	279.3
42.5°	319.2	312.4	297.4	278.5	261.9	252.7	253.5	256.6	258.9
45°	286.8	280.7	267.1	250.6	236.2	229.4	231.7	235.5	237.7
47.5°	257.3	252.1	239.2	224.1	212.0	207.6	210.5	215.1	218.0
50°	230.2	225.7	213.6	197.7	187.9	184.9	188.7	193.2	194.7
52.5°	206.0	201.5	188.7	175.0	167.5	166.0	169.8	173.5	175.8
55°	181.2	177.3	166.8	154.7	148.6	147.9	151.7	154.7	156.2
57.5°	160.7	156.9	147.1	136.6	131.3	130.5	134.3	136.6	137.4
60°	141.1	137.4	128.3	118.5	114.7	114.7	117.0	118.5	119.3
62.5°	123.0	119.3	111.0	102.6	99.6	99.6	99.6	100.4	102.6
65°	105.6	102.6	95.1	87.5	85.2	83.8	83.8	83.8	85.2
67.5°	89.8	86.8	80.8	74.0	71.7	69.4	68.6	70.2	70.2
70°	74.7	72.5	66.5	61.1	58.8	56.6	55.9	58.8	58.8
72.5°	61.1	58.8	55.1	49.8	47.6	46.8	48.3	49.8	50.5
75°	48.3	46.1	43.0	39.9	37.8	38.5	40.7	41.5	42.2
77.5°	36.2	35.5	32.4	30.2	30.2	31.0	32.4	33.9	34.7
80°	25.6	24.9	23.4	21.8	22.6	24.1	24.9	26.4	25.6
82.5°	15.8	15.8	15.1	15.1	15.8	17.4	18.1	18.9	19.6
85°	8.3	8.3	8.3	9.1	9.8	10.6	11.3	12.1	12.1
87.5°	2.3	3.1	3.1	3.8	4.6	4.6	5.2	5.2	5.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)