

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: P579790

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579790
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC410D010-HM40525930-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 945.0 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

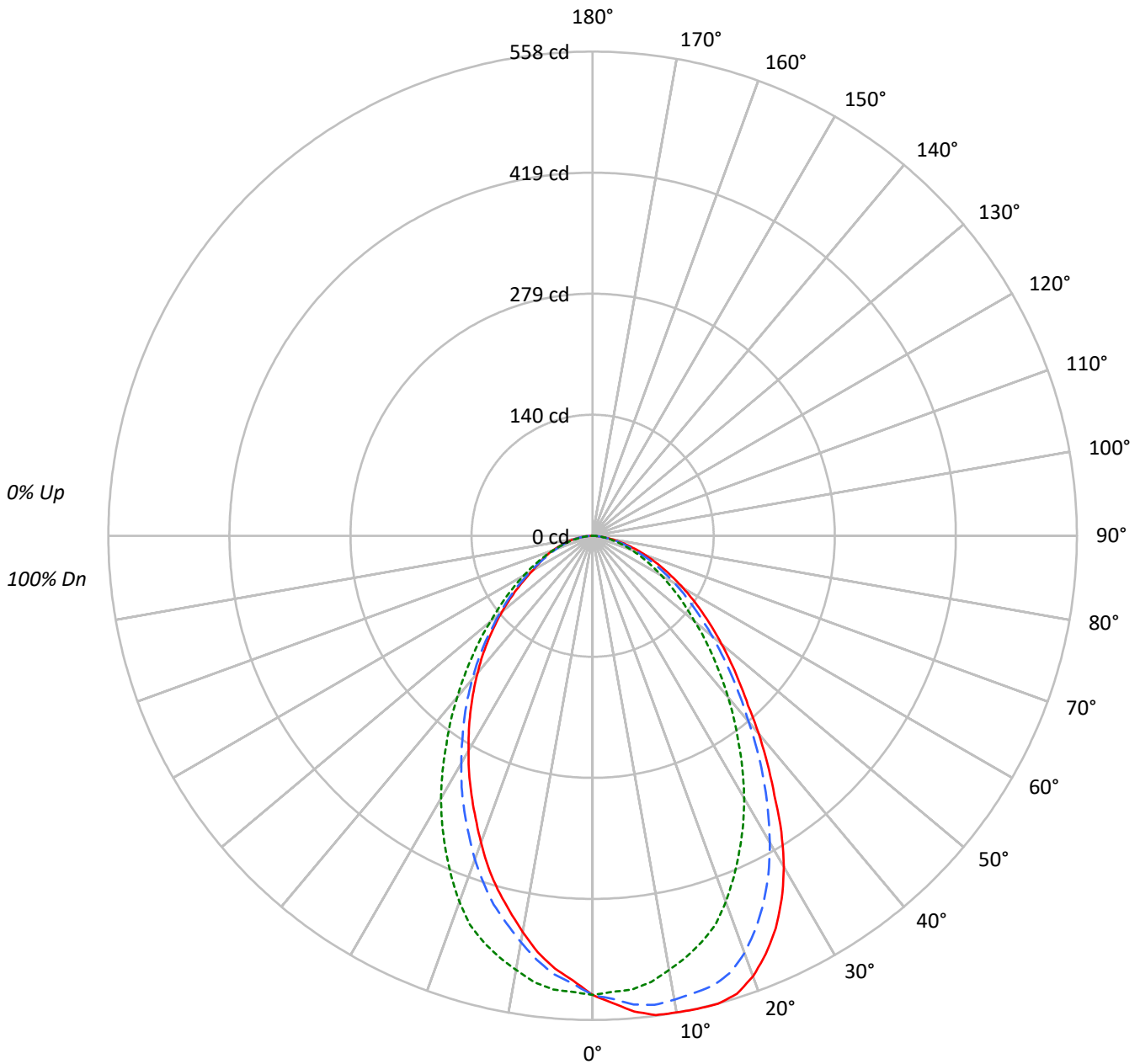
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P579790

CATALOG NUMBER: HC410D010-HM40525930-41WWW

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	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47																			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	65275	65275	65275
5°	68136	64979	61970
10°	69864	63626	58078
15°	71306	61920	53901
20°	70921	58910	49354
25°	67940	54480	44898
30°	62768	49750	40706
35°	55021	44240	36846
40°	47918	39079	33185
45°	41708	34102	29637
50°	37150	29398	26155
55°	33203	25849	22644
60°	29652	22572	19513
65°	26326	19788	18533
70°	23117	17058	17275
75°	19587	14535	16013
80°	15059	12360	14633
85°	8916	9624	12454



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.6	5.2
10°-20°	136.8	14.5
20°-30°	186.9	19.8
30°-40°	187.7	19.9
40°-50°	155.3	16.4
50°-60°	112.5	11.9
60°-70°	71.3	7.5
70°-80°	36.0	3.8
80°-90°	8.8	0.9
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°	373.3	39.5
0°-40°	561.0	59.4
0°-60°	828.8	87.7
0°-90°	945.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	945.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	529	529	529	529	529	
5°	550	542	525	507	500	53
15°	558	537	485	440	422	157
25°	499	466	400	350	330	228
35°	365	344	294	258	245	229
45°	239	225	196	176	170	186
55°	154	141	120	110	105	139
65°	90	80	68	61	64	90
75°	41	36	30	32	34	44
85°	6	6	7	8	9	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°	529.2	529.2	529.2	529.2	529.2	529.2	529.2	529.2	529.2
2.5°	539.1	537.2	534.2	530.4	526.1	521.1	516.7	514.3	513.0
5°	550.3	547.8	542.3	534.2	524.8	515.5	507.3	502.4	500.5
7.5°	557.2	553.4	545.3	532.9	518.6	504.9	493.1	486.2	484.3
10°	557.8	553.4	542.8	526.1	508.0	489.9	475.6	465.7	463.7
12.5°	558.4	552.8	539.8	519.8	497.4	475.0	457.6	445.8	442.6
15°	558.4	552.8	536.7	513.0	484.9	459.4	440.2	426.4	422.1
17.5°	553.4	547.3	527.9	500.5	470.0	441.4	419.0	404.7	400.3
20°	540.3	533.5	511.8	481.8	448.8	419.0	396.6	381.6	376.0
22.5°	521.7	513.6	490.6	458.2	425.2	394.7	372.9	357.3	352.3
25°	499.2	491.2	466.2	434.5	400.3	371.7	349.8	335.6	329.9
27.5°	471.9	463.2	438.9	407.2	375.4	346.7	326.8	313.7	308.2
30°	440.7	431.4	408.4	377.9	349.3	321.8	302.6	292.0	285.8
32.5°	404.7	396.6	376.0	348.6	321.8	295.7	279.5	270.2	265.2
35°	365.4	361.1	343.7	320.0	293.8	272.1	257.8	249.0	244.7
37.5°	330.6	326.3	311.2	291.3	268.3	248.4	236.6	229.1	225.3
40°	297.6	293.8	279.5	262.8	242.7	225.3	215.4	209.8	206.1
42.5°	265.2	263.3	251.5	235.9	218.5	203.6	195.5	191.1	188.0
45°	239.1	236.6	225.3	210.4	195.5	183.0	176.2	173.1	169.9
47.5°	216.0	212.9	201.1	188.0	174.3	163.1	156.9	153.7	152.5
50°	193.6	190.5	179.9	166.8	153.2	145.1	140.1	137.0	136.3
52.5°	173.7	170.6	158.8	146.3	135.8	128.8	124.5	121.4	120.2
55°	154.4	150.7	140.7	128.8	120.2	113.9	109.6	106.4	105.3
57.5°	137.0	133.3	124.5	113.3	105.3	99.6	95.8	92.7	91.5
60°	120.2	117.0	108.9	98.3	91.5	86.5	82.8	80.3	79.1
62.5°	104.6	102.1	94.0	84.7	79.1	74.7	71.6	69.1	70.3
65°	90.2	87.7	80.3	72.3	67.8	63.5	61.0	61.0	63.5
67.5°	76.6	74.1	67.8	61.0	57.2	54.2	52.3	54.2	56.0
70°	64.1	61.7	56.0	50.4	47.3	44.8	44.8	46.7	47.9
72.5°	52.3	49.8	45.4	41.1	38.6	36.8	38.6	39.8	41.1
75°	41.1	39.3	35.5	32.3	30.5	29.9	31.8	33.0	33.6
77.5°	30.5	29.2	26.7	24.2	23.0	23.7	25.5	26.2	26.7
80°	21.2	20.6	18.7	17.4	17.4	18.1	19.3	19.9	20.6
82.5°	13.1	13.1	11.8	11.2	11.8	13.1	13.7	14.3	14.3
85°	6.3	6.8	6.3	6.3	6.8	8.1	8.1	8.8	8.8
87.5°	1.8	1.8	2.5	2.5	3.1	3.1	3.1	3.1	3.8
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)