

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: P579881

Luminaire Tested: **HC415D010-HM40525835-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579881
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: HC415D010-HM40525835-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1508.4 lumens
Efficiency: N/A
Efficacy: 107.7 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

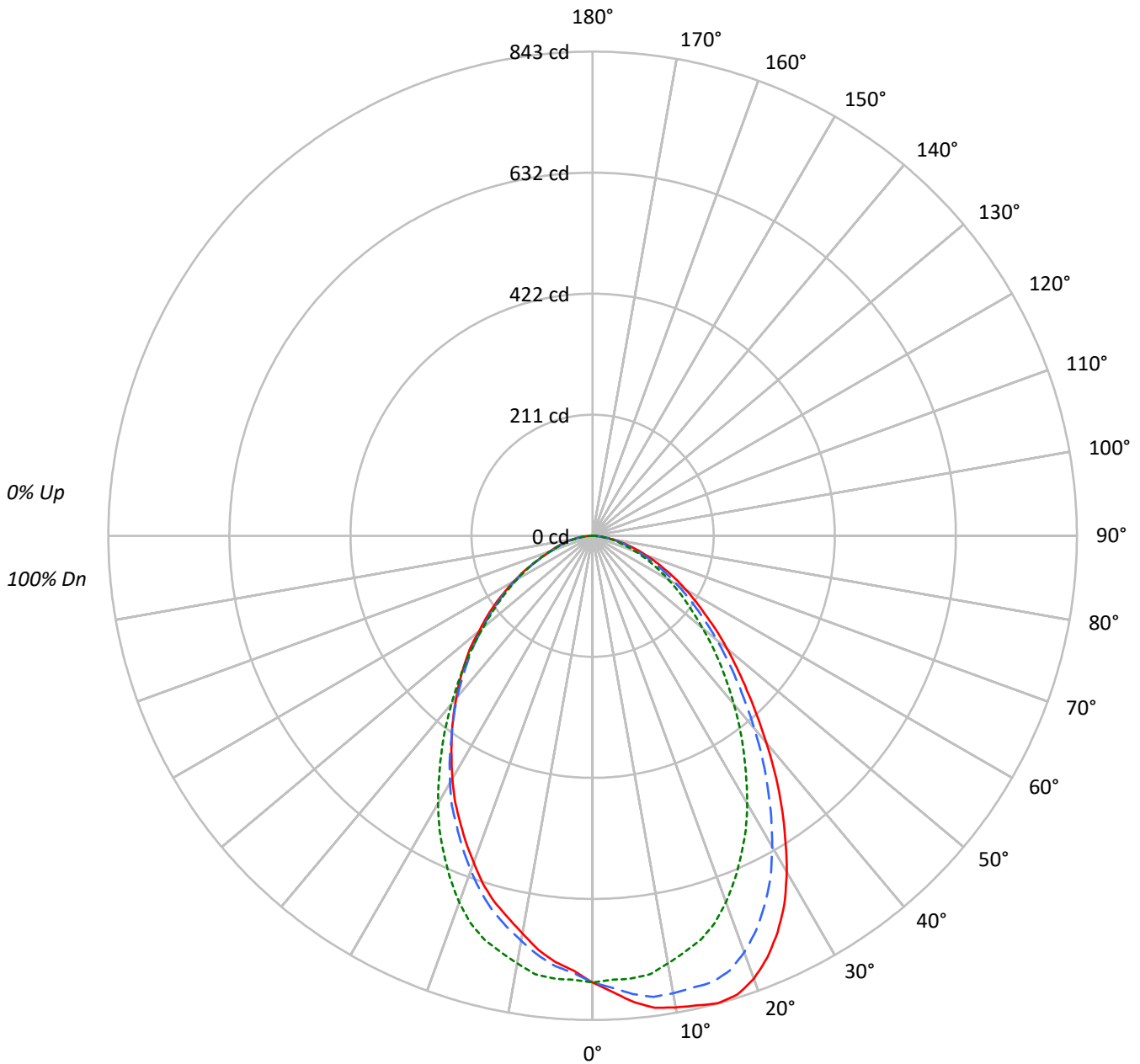
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P579881

CATALOG NUMBER: HC415D010-HM40525835-41WWWB

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	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°	95938	95938	95938
5°	100886	95809	92219
10°	104432	94675	88037
15°	107610	92950	84280
20°	107726	89114	79426
25°	103679	83291	74459
30°	96267	76640	69533
35°	86311	69010	64357
40°	75726	61573	59479
45°	66181	54529	54860
50°	58431	47723	49431
55°	51547	42300	44450
60°	46057	37448	38903
65°	40773	32922	32922
70°	35631	28094	28094
75°	30453	23781	26640
80°	24151	21239	24151
85°	15568	18398	22644



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.7	4.9
10°-20°	207.5	13.8
20°-30°	290.7	19.3
30°-40°	299.5	19.9
40°-50°	255.0	16.9
50°-60°	189.0	12.5
60°-70°	118.6	7.9
70°-80°	58.9	3.9
80°-90°	15.5	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°	572.0	37.9
0°-40°	871.5	57.8
0°-60°	1315.5	87.2
0°-90°	1508.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1508.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	778	778	778	778	778	
5°	815	801	774	752	745	78
15°	843	805	728	675	660	237
25°	762	709	612	559	547	348
35°	573	530	458	428	427	357
45°	379	354	313	306	314	294
55°	240	221	197	201	207	217
65°	140	126	113	111	113	139
75°	64	57	50	54	56	68
85°	11	11	13	15	16	14
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°	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8
2.5°	794.8	791.8	787.8	780.8	773.8	767.8	761.8	758.8	757.8
5°	814.8	808.7	800.8	787.8	773.8	761.8	751.9	746.9	744.8
7.5°	828.8	822.7	809.8	789.8	769.9	751.9	735.9	728.9	726.9
10°	833.8	826.7	808.7	781.8	755.9	733.8	715.9	706.9	702.9
12.5°	837.7	828.8	805.8	773.8	741.9	714.9	696.0	683.9	680.9
15°	842.7	832.7	804.8	765.8	727.9	696.0	674.9	664.0	660.0
17.5°	837.7	826.7	793.7	749.9	706.9	672.0	649.0	639.0	635.0
20°	820.7	808.7	771.8	724.8	678.9	643.0	620.0	610.1	605.1
22.5°	794.8	781.8	743.8	693.9	647.0	612.0	590.1	580.1	577.1
25°	761.8	748.8	708.9	658.0	612.0	578.2	559.2	550.2	547.1
27.5°	722.9	709.9	670.9	621.0	577.1	545.2	530.2	521.2	519.2
30°	675.9	663.0	625.0	579.1	538.1	508.2	496.2	489.3	488.2
32.5°	624.0	613.1	578.2	536.2	497.2	472.3	463.3	458.3	457.3
35°	573.2	561.1	530.2	492.2	458.3	436.4	428.3	427.4	427.4
37.5°	521.2	509.3	484.2	449.3	420.3	400.3	397.4	398.4	398.4
40°	470.3	459.3	437.3	408.4	382.4	367.5	366.5	368.4	369.4
42.5°	422.4	413.4	393.4	368.4	346.4	334.5	335.5	339.5	342.5
45°	379.4	371.5	353.5	331.4	312.6	303.6	306.5	311.5	314.5
47.5°	340.5	333.5	316.5	296.5	280.6	274.6	278.6	284.6	288.6
50°	304.5	298.6	282.5	261.6	248.7	244.6	249.6	255.6	257.6
52.5°	272.5	266.6	249.6	231.6	221.7	219.7	224.7	229.7	232.6
55°	239.7	234.7	220.7	204.7	196.7	195.7	200.7	204.7	206.7
57.5°	212.6	207.7	194.7	180.7	173.7	172.7	177.7	180.7	181.7
60°	186.7	181.7	169.8	156.8	151.8	151.8	154.7	156.8	157.7
62.5°	162.7	157.7	146.8	135.8	131.8	131.8	131.8	132.8	135.8
65°	139.7	135.8	125.8	115.9	112.8	110.9	110.9	110.9	112.8
67.5°	118.8	114.8	106.9	97.9	94.8	91.9	90.8	92.9	92.9
70°	98.8	95.8	87.9	80.8	77.9	74.9	73.9	77.9	77.9
72.5°	80.8	77.9	72.9	65.9	62.9	61.9	63.9	65.9	66.9
75°	63.9	60.9	57.0	52.9	49.9	50.9	53.9	54.9	55.9
77.5°	48.0	47.0	43.0	39.9	39.9	40.9	43.0	44.9	45.9
80°	34.0	33.0	30.9	29.0	29.9	31.9	33.0	34.9	34.0
82.5°	20.9	20.9	20.0	20.0	20.9	23.0	24.0	25.0	25.9
85°	11.0	11.0	11.0	11.9	13.0	14.0	15.0	16.0	16.0
87.5°	3.0	4.0	4.0	5.0	6.0	6.0	6.9	6.9	6.9
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)