

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: P592635

Luminaire Tested: **HC415D010-HM40525850-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592635
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: HC415D010-HM40525850-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1245.4 lumens
Efficiency: N/A
Efficacy: 89.0 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

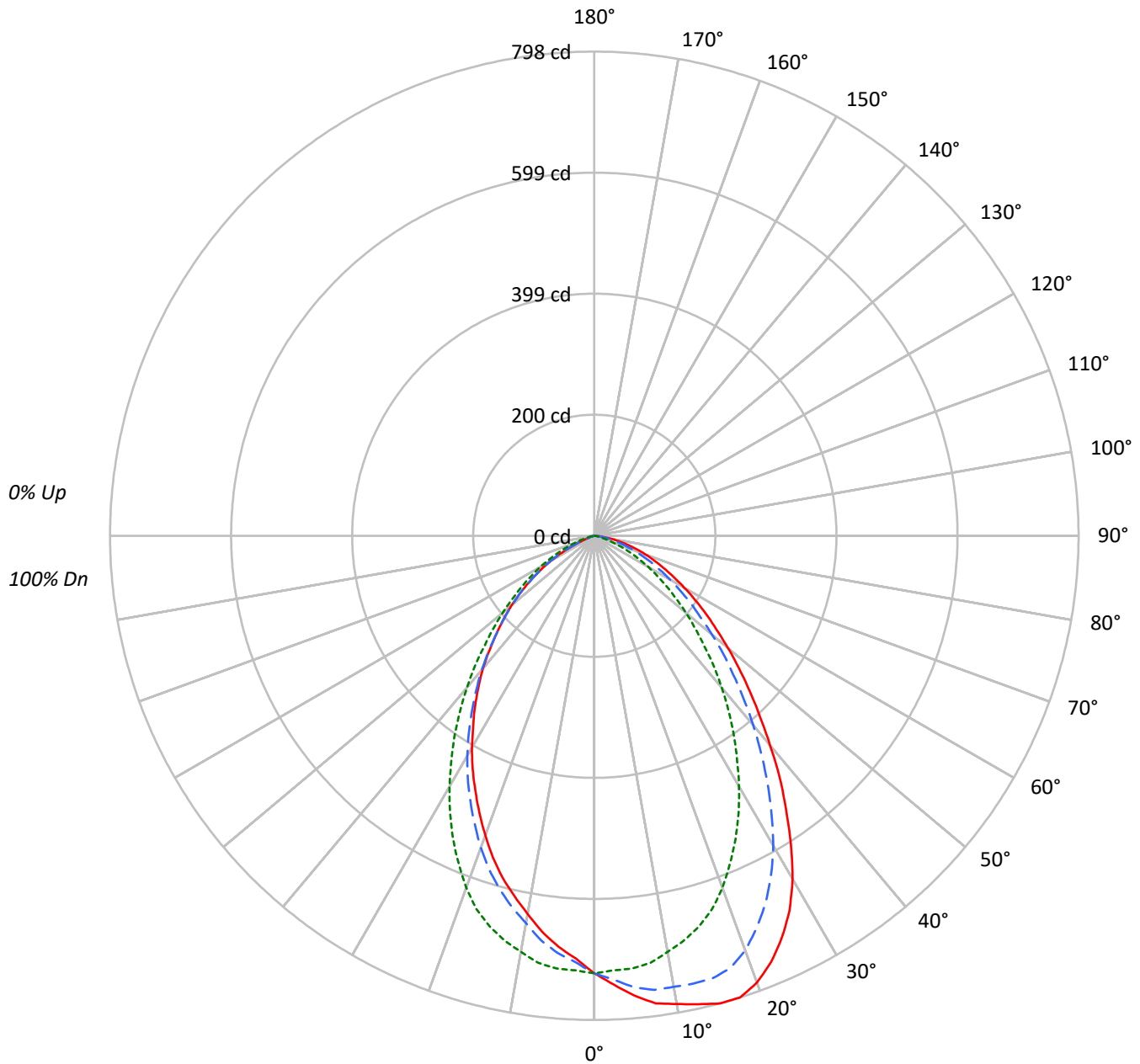
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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	43	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°	88932	88932	88932
5°	94225	88640	84183
10°	98145	87223	79270
15°	101889	85123	74524
20°	102857	81041	68926
25°	99514	74962	63094
30°	93048	67924	57412
35°	82938	60381	51588
40°	72506	52507	45922
45°	63146	44551	39719
50°	55111	37783	34061
55°	48299	31311	27590
60°	42234	25311	20253
65°	36833	18854	11383
70°	32205	12226	3679
75°	26402	6338	953
80°	19676	2912	710
85°	11605	1415	1415



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.1	5.5
10°-20°	190.4	15.3
20°-30°	263.3	21.1
30°-40°	264.8	21.3
40°-50°	213.7	17.2
50°-60°	144.5	11.6
60°-70°	73.5	5.9
70°-80°	23.5	1.9
80°-90°	3.6	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°	521.8	41.9
0°-40°	786.6	63.2
0°-60°	1144.7	91.9
0°-90°	1245.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1245.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	721	721	721	721	721	
5°	761	747	716	690	680	73
15°	798	755	667	603	584	225
25°	731	668	551	483	464	335
35°	551	497	401	351	343	344
45°	362	324	255	228	228	281
55°	225	194	146	127	128	202
65°	126	103	65	42	39	127
75°	55	39	13	3	2	60
85°	8	4	1	1	1	11
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°	721.0	721.0	721.0	721.0	721.0	721.0	721.0	721.0	721.0
2.5°	740.5	736.4	732.3	725.1	716.9	708.7	703.6	699.5	697.4
5°	761.0	755.9	746.7	731.2	715.9	701.5	690.3	683.1	679.9
7.5°	777.4	770.2	754.9	733.4	709.7	687.2	672.8	662.5	658.4
10°	783.6	775.3	754.9	726.1	696.4	668.7	648.2	638.0	632.9
12.5°	790.8	781.5	755.9	719.9	683.1	650.3	626.6	613.3	608.2
15°	797.9	785.7	754.9	710.7	666.6	628.6	603.1	589.8	583.6
17.5°	797.9	783.6	746.7	695.4	645.1	605.1	576.3	561.0	555.9
20°	783.6	767.1	727.1	670.7	617.4	574.3	546.7	531.3	525.1
22.5°	761.0	742.6	699.5	641.0	584.6	542.6	514.8	500.5	494.4
25°	731.2	712.8	667.6	607.2	550.8	508.7	483.1	469.7	463.6
27.5°	696.4	675.8	630.8	570.2	514.8	474.8	451.3	439.0	433.9
30°	653.3	633.9	589.8	530.3	476.9	440.0	418.4	407.2	403.1
32.5°	603.1	586.7	543.6	488.2	438.0	404.1	384.6	375.3	371.2
35°	550.8	535.4	497.4	446.2	401.0	369.2	350.8	344.6	342.6
37.5°	501.5	488.2	451.3	404.1	363.0	335.4	318.9	314.8	312.8
40°	450.3	441.0	407.2	364.1	326.1	301.5	288.2	285.2	285.2
42.5°	404.1	393.9	364.1	325.1	291.3	266.6	257.4	254.3	255.4
45°	362.0	351.8	324.0	288.2	255.4	234.9	227.7	227.7	227.7
47.5°	323.0	313.8	288.2	251.3	224.6	208.2	201.0	201.0	202.0
50°	287.2	281.1	252.3	220.5	196.9	181.6	176.3	175.3	177.5
52.5°	253.3	246.2	220.5	191.8	169.2	156.9	151.8	150.8	151.8
55°	224.6	216.4	193.9	166.1	145.6	133.4	127.2	126.2	128.3
57.5°	196.9	190.8	167.1	142.6	123.0	110.7	105.6	103.6	104.6
60°	171.2	165.1	143.6	120.0	102.6	90.3	83.1	81.1	82.1
62.5°	147.7	142.6	122.0	99.5	82.1	70.7	63.6	58.4	60.5
65°	126.2	121.0	102.6	80.0	64.6	52.3	42.1	38.0	39.0
67.5°	107.7	101.5	84.1	63.6	48.2	34.9	23.5	21.5	21.5
70°	89.3	83.1	67.7	49.2	33.9	18.4	10.2	10.2	10.2
72.5°	71.7	66.6	52.3	37.0	21.5	8.2	4.1	4.1	4.1
75°	55.4	51.3	39.0	25.7	13.3	4.1	3.1	2.0	2.0
77.5°	41.0	37.0	27.7	17.4	8.2	2.0	2.0	2.0	2.0
80°	27.7	24.6	18.4	10.2	4.1	1.0	1.0	1.0	1.0
82.5°	16.4	14.3	10.2	5.1	2.0	1.0	1.0	1.0	1.0
85°	8.2	6.1	4.1	2.0	1.0	1.0	1.0	1.0	1.0
87.5°	2.0	1.0	1.0	1.0	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)