

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: P579845

Luminaire Tested: **HC415D010-HM40525827-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579845
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-HM40525827-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1343.6 lumens
Efficiency: N/A
Efficacy: 96.0 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

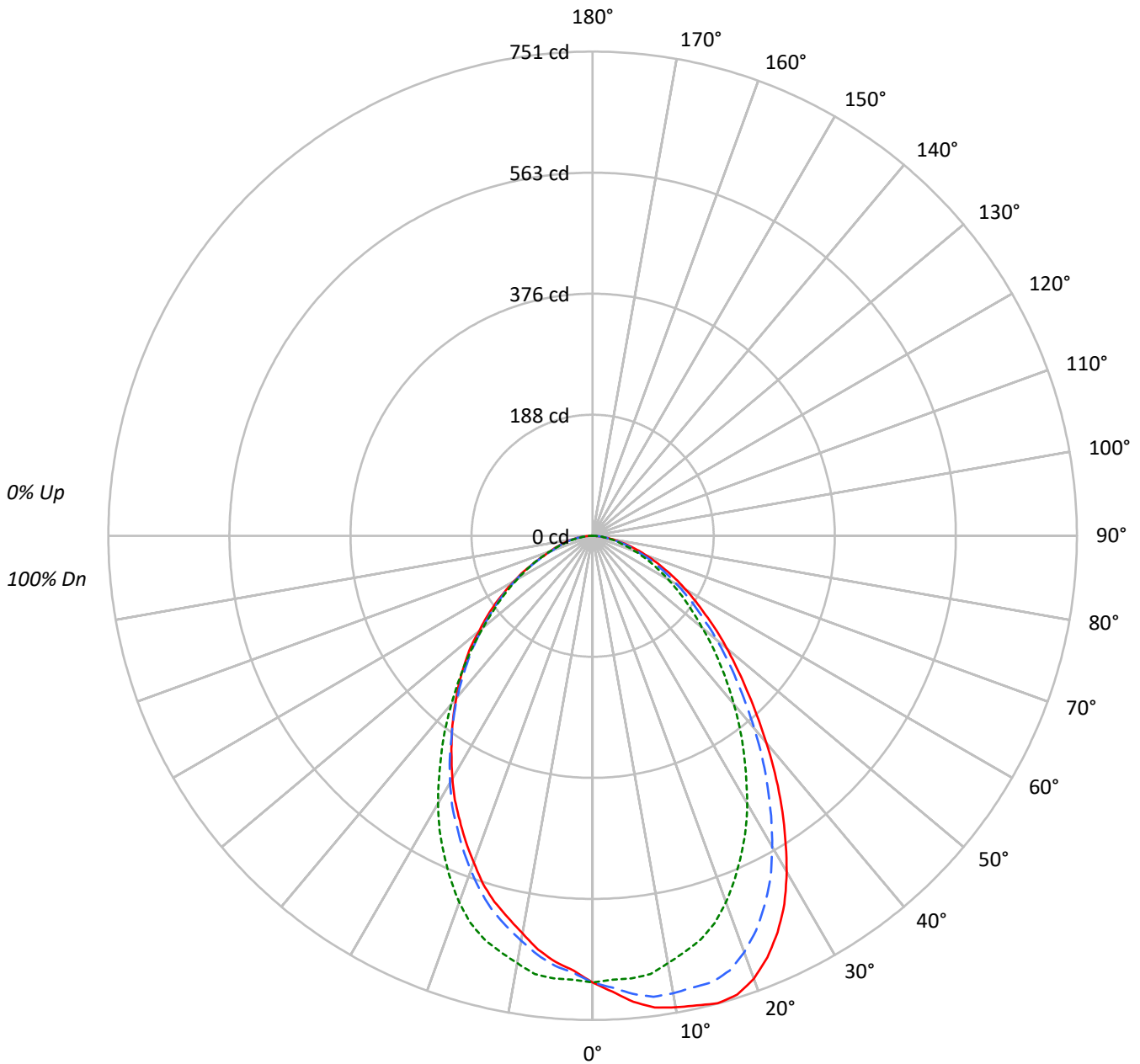
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	85454	85454	85454
5°	89854	85335	82140
10°	93009	84317	78418
15°	95849	82786	75060
20°	95965	79387	70737
25°	92355	74200	66320
30°	85741	68280	61942
35°	76870	61466	57325
40°	67450	54842	52974
45°	58942	48546	48877
50°	52060	42504	44020
55°	45891	37676	39590
60°	41025	33353	34660
65°	36337	29332	29332
70°	31736	25028	25028
75°	27165	21207	23733
80°	21452	18966	21452
85°	13869	16417	20096



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.6	4.9
10°-20°	184.8	13.8
20°-30°	259.0	19.3
30°-40°	266.8	19.9
40°-50°	227.1	16.9
50°-60°	168.3	12.5
60°-70°	105.6	7.9
70°-80°	52.5	3.9
80°-90°	13.8	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°	509.5	37.9
0°-40°	776.3	57.8
0°-60°	1171.7	87.2
0°-90°	1343.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1343.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	693	693	693	693	693	
5°	726	713	689	670	663	70
15°	751	717	648	601	588	211
25°	679	632	545	498	487	310
35°	510	472	408	382	381	318
45°	338	315	278	273	280	262
55°	213	197	175	179	184	193
65°	124	112	100	99	100	124
75°	57	51	44	48	50	61
85°	10	10	12	13	14	13
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°	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8
2.5°	707.9	705.3	701.6	695.5	689.2	683.9	678.6	675.9	675.0
5°	725.7	720.4	713.2	701.6	689.2	678.6	669.7	665.3	663.4
7.5°	738.1	732.8	721.3	703.5	685.7	669.7	655.5	649.2	647.4
10°	742.6	736.4	720.4	696.4	673.2	653.7	637.6	629.7	626.1
12.5°	746.2	738.1	717.7	689.2	660.8	636.7	619.9	609.2	606.6
15°	750.6	741.7	716.8	682.1	648.3	619.9	601.2	591.5	587.8
17.5°	746.2	736.4	707.0	667.9	629.7	598.5	578.1	569.2	565.7
20°	731.1	720.4	687.4	645.7	604.8	572.7	552.2	543.4	538.9
22.5°	707.9	696.4	662.5	618.1	576.3	545.2	525.6	516.8	514.0
25°	678.6	667.0	631.5	586.1	545.2	514.9	498.0	490.0	487.3
27.5°	643.9	632.3	597.6	553.2	514.0	485.6	472.2	464.2	462.4
30°	602.0	590.6	556.8	515.9	479.4	452.6	442.0	435.8	434.9
32.5°	555.9	546.1	514.9	477.5	442.9	420.7	412.6	408.2	407.3
35°	510.5	499.8	472.2	438.4	408.2	388.6	381.6	380.7	380.7
37.5°	464.2	453.5	431.4	400.2	374.4	356.7	353.9	354.9	354.9
40°	418.9	409.1	389.5	363.7	340.6	327.2	326.4	328.1	329.0
42.5°	376.2	368.2	350.4	328.1	308.6	297.9	298.8	302.3	305.1
45°	337.9	330.9	314.8	295.3	278.3	270.4	273.0	277.4	280.2
47.5°	303.2	297.1	282.0	264.1	249.9	244.6	248.1	253.4	257.1
50°	271.3	265.9	251.7	233.0	221.5	217.8	222.3	227.6	229.4
52.5°	242.7	237.4	222.3	206.4	197.4	195.7	200.1	204.5	207.3
55°	213.4	209.0	196.6	182.3	175.2	174.3	178.7	182.3	184.1
57.5°	189.4	185.0	173.4	161.0	154.7	153.8	158.3	161.0	161.9
60°	166.3	161.9	151.2	139.6	135.2	135.2	137.8	139.6	140.5
62.5°	145.0	140.5	130.8	121.0	117.3	117.3	117.3	118.2	121.0
65°	124.5	121.0	112.1	103.1	100.5	98.7	98.7	98.7	100.5
67.5°	105.9	102.3	95.2	87.2	84.5	81.9	81.0	82.7	82.7
70°	88.0	85.4	78.2	72.1	69.4	66.7	65.8	69.4	69.4
72.5°	72.1	69.4	64.9	58.7	56.1	55.1	57.0	58.7	59.6
75°	57.0	54.2	50.7	47.2	44.5	45.4	48.0	48.9	49.8
77.5°	42.6	41.8	38.2	35.6	35.6	36.5	38.2	40.0	40.9
80°	30.2	29.3	27.5	25.8	26.7	28.4	29.3	31.2	30.2
82.5°	18.6	18.6	17.7	17.7	18.6	20.5	21.4	22.3	23.1
85°	9.8	9.8	9.8	10.7	11.6	12.5	13.3	14.2	14.2
87.5°	2.6	3.5	3.5	4.4	5.3	5.3	6.3	6.3	6.3
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)