

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: P579932

Luminaire Tested: **HC415D010-HM40525930-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579932
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC415D010-HM40525930-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1298.4 lumens
Efficiency: N/A
Efficacy: 92.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

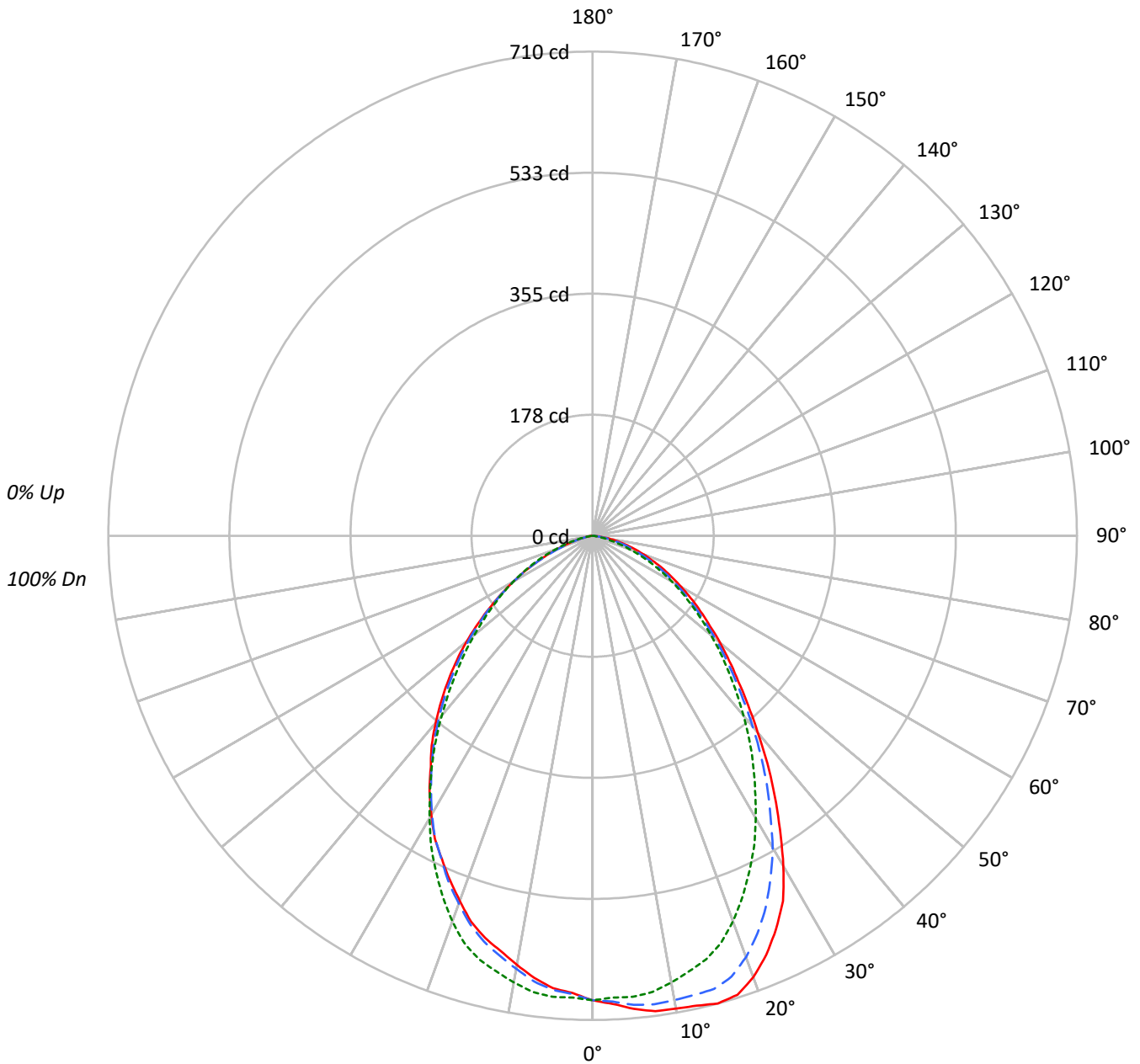
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67																			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47																			
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	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	41	37	47	41	37	46	41	37	35																			
10	58	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°	84023	84023	84023
5°	86226	84034	82450
10°	88175	83303	80021
15°	90652	82122	77908
20°	90413	78967	74754
25°	86612	73941	71165
30°	79660	68094	67368
35°	70079	61812	62309
40°	60639	55325	57628
45°	52697	49139	52104
50°	46764	43348	46284
55°	41482	38020	39655
60°	36930	32983	32983
65°	32864	27406	25684
70°	28382	20737	18320
75°	23781	13725	11247
80°	18042	6606	5967
85°	9624	2406	2406



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.5	5.0
10°-20°	182.9	14.1
20°-30°	257.9	19.9
30°-40°	266.4	20.5
40°-50°	225.9	17.4
50°-60°	164.3	12.7
60°-70°	96.0	7.4
70°-80°	35.7	2.7
80°-90°	4.7	0.4
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°	505.3	38.9
0°-40°	771.8	59.4
0°-60°	1162.0	89.5
0°-90°	1298.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1298.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	681	681	681	681	681	
5°	696	690	679	668	666	67
15°	710	688	643	616	610	200
25°	636	601	543	524	523	291
35°	465	445	410	411	414	291
45°	302	294	282	292	299	235
55°	193	184	177	183	184	173
65°	113	103	94	88	88	112
75°	50	42	29	23	24	54
85°	7	4	2	2	2	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°	681.2	681.2	681.2	681.2	681.2	681.2	681.2	681.2	681.2
2.5°	687.1	685.4	683.7	681.2	677.8	675.3	672.8	671.1	671.1
5°	696.4	693.9	690.5	684.6	678.7	673.6	668.4	665.9	665.9
7.5°	703.2	699.8	693.0	684.6	674.5	666.9	659.2	655.8	654.1
10°	704.0	700.6	691.3	678.7	665.1	653.2	644.8	639.7	638.9
12.5°	705.7	701.5	689.6	671.9	654.1	639.7	630.5	625.4	623.6
15°	709.9	704.0	688.0	665.1	643.1	626.1	616.0	611.8	610.1
17.5°	705.7	697.2	677.8	650.7	626.1	607.6	597.4	593.2	593.2
20°	688.8	680.4	657.5	627.9	601.6	583.8	573.7	571.2	569.5
22.5°	665.1	655.8	631.3	600.0	573.7	557.6	550.9	547.5	546.7
25°	636.4	627.1	600.8	568.6	543.3	529.7	523.8	523.8	522.9
27.5°	604.2	592.4	565.2	537.3	512.8	502.7	500.1	500.1	501.0
30°	559.3	550.9	528.0	501.0	478.1	471.3	471.3	473.0	473.0
32.5°	511.1	505.2	484.8	461.2	443.4	439.2	440.8	444.2	445.1
35°	465.4	458.7	445.1	424.0	410.5	408.8	411.3	413.8	413.8
37.5°	420.6	413.8	404.4	387.6	377.4	378.3	381.6	385.0	387.6
40°	376.6	371.5	364.7	351.2	343.6	346.9	351.2	354.5	357.9
42.5°	337.6	332.6	327.5	317.3	312.2	316.4	321.5	325.0	328.4
45°	302.1	298.7	293.6	285.2	281.7	286.1	292.0	295.3	298.7
47.5°	271.6	269.9	263.2	255.6	253.9	258.1	263.2	267.4	269.9
50°	243.7	241.2	235.2	227.6	225.9	232.7	236.0	238.7	241.2
52.5°	216.6	214.1	207.3	200.6	200.6	205.6	208.2	209.0	211.6
55°	192.9	190.4	183.6	178.5	176.8	181.1	182.8	182.8	184.4
57.5°	170.9	168.4	161.6	155.7	154.9	157.4	157.4	157.4	158.3
60°	149.7	147.2	140.4	135.4	133.7	134.5	133.7	132.8	133.7
62.5°	130.3	127.8	121.0	115.1	113.4	113.4	110.9	110.1	110.9
65°	112.6	108.4	103.2	97.3	93.9	91.4	88.0	88.0	88.0
67.5°	94.8	91.4	85.5	79.6	75.3	71.1	66.1	67.7	68.6
70°	78.7	76.2	69.4	63.4	57.5	52.4	48.2	49.9	50.8
72.5°	64.4	60.9	55.0	48.2	43.2	36.4	33.9	35.6	35.6
75°	49.9	46.5	41.5	34.7	28.8	22.9	22.9	23.6	23.6
77.5°	37.2	33.9	28.8	22.9	17.7	13.5	14.4	14.4	14.4
80°	25.4	22.9	18.6	13.5	9.3	7.6	7.6	7.6	8.4
82.5°	14.4	12.7	10.1	6.8	4.2	4.2	4.2	4.2	4.2
85°	6.8	5.1	4.2	2.5	1.7	1.7	1.7	1.7	1.7
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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)