

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: P579914

Luminaire Tested: **HC415D010-HM40525927-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579914
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-HM40525927-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1167.0 lumens
Efficiency: N/A
Efficacy: 83.4 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

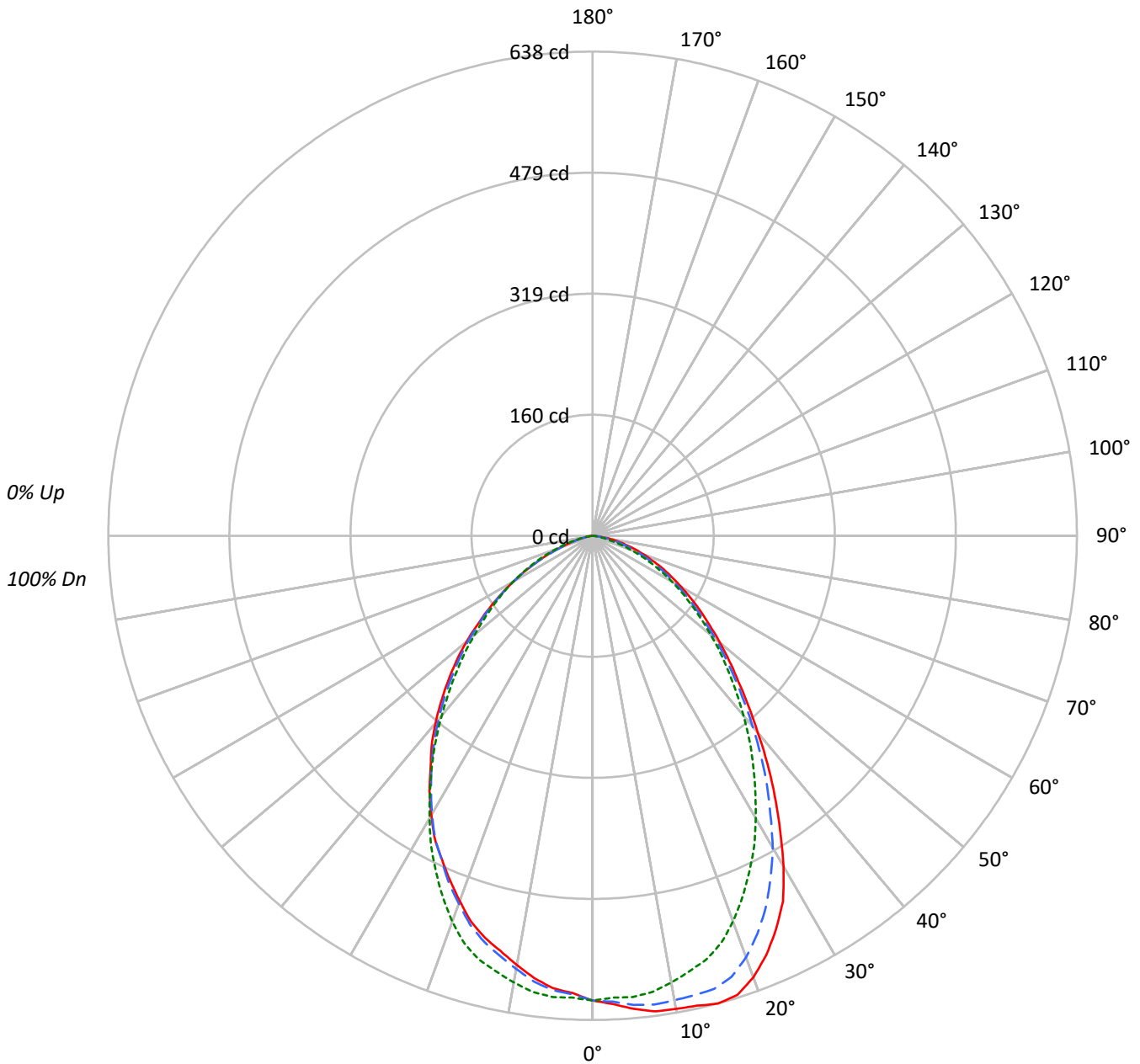
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				100															
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88															
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77				77															
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67				67															
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59				59															
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				52															
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47				47															
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42				42															
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38															
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				35															
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32															

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	75525	75525	75525
5°	77497	75528	74104
10°	79270	74874	71918
15°	81483	73822	70029
20°	81264	70986	67193
25°	77834	66456	63966
30°	71612	61201	60546
35°	62986	55533	56000
40°	54504	49722	51815
45°	47360	44185	46819
50°	42043	38973	41583
55°	37289	34192	35655
60°	33205	29652	29652
65°	29536	24662	23086
70°	25497	18645	16445
75°	21398	12296	10151
80°	16266	5967	5398
85°	8633	2123	2123



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	5.0
10°-20°	164.4	14.1
20°-30°	231.8	19.9
30°-40°	239.5	20.5
40°-50°	203.0	17.4
50°-60°	147.7	12.7
60°-70°	86.3	7.4
70°-80°	32.1	2.7
80°-90°	4.2	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°	454.2	38.9
0°-40°	693.7	59.4
0°-60°	1044.4	89.5
0°-90°	1167.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1167.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	612	612	612	612	612	
5°	626	621	610	601	598	60
15°	638	618	578	554	548	179
25°	572	540	488	471	470	262
35°	418	400	369	370	372	261
45°	272	264	253	262	268	211
55°	173	165	159	164	166	156
65°	101	93	84	79	79	100
75°	45	37	26	21	21	48
85°	6	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°	612.3	612.3	612.3	612.3	612.3	612.3	612.3	612.3	612.3
2.5°	617.6	616.0	614.5	612.3	609.2	606.9	604.7	603.2	603.2
5°	625.9	623.6	620.6	615.3	610.0	605.5	600.9	598.5	598.5
7.5°	632.1	629.0	623.0	615.3	606.1	599.3	592.5	589.4	587.9
10°	632.9	629.8	621.4	610.0	597.8	587.1	579.5	575.0	574.2
12.5°	634.3	630.5	619.9	603.9	587.9	575.0	566.7	562.0	560.5
15°	638.1	632.9	618.3	597.8	578.1	562.8	553.7	549.9	548.4
17.5°	634.3	626.7	609.2	584.9	562.8	546.1	537.0	533.1	533.1
20°	619.1	611.5	591.0	564.3	540.8	524.8	515.6	513.4	511.9
22.5°	597.8	589.4	567.4	539.3	515.6	501.2	495.2	492.1	491.3
25°	571.9	563.6	540.0	511.1	488.3	476.2	470.8	470.8	470.0
27.5°	543.0	532.5	508.0	483.0	460.9	451.7	449.5	449.5	450.3
30°	502.8	495.2	474.6	450.3	429.7	423.6	423.6	425.1	425.1
32.5°	459.3	454.1	435.8	414.6	398.5	394.8	396.2	399.3	400.1
35°	418.3	412.3	400.1	381.0	368.8	367.4	369.6	371.9	371.9
37.5°	378.1	371.9	363.5	348.4	339.2	340.0	343.0	346.1	348.4
40°	338.5	333.9	327.8	315.6	308.8	311.9	315.6	318.7	321.8
42.5°	303.5	298.9	294.4	285.2	280.6	284.5	289.0	292.1	295.1
45°	271.5	268.4	263.9	256.3	253.3	257.1	262.4	265.5	268.4
47.5°	244.1	242.6	236.5	229.7	228.2	231.9	236.5	240.4	242.6
50°	219.1	216.7	211.5	204.5	203.1	209.2	212.2	214.4	216.7
52.5°	194.7	192.4	186.4	180.2	180.2	184.9	187.2	187.8	190.1
55°	173.4	171.1	165.1	160.4	159.0	162.8	164.3	164.3	165.8
57.5°	153.6	151.3	145.3	140.0	139.2	141.4	141.4	141.4	142.2
60°	134.6	132.3	126.2	121.7	120.2	121.0	120.2	119.4	120.2
62.5°	117.1	114.8	108.8	103.5	101.9	101.9	99.6	98.9	99.6
65°	101.2	97.3	92.8	87.4	84.5	82.1	79.1	79.1	79.1
67.5°	85.2	82.1	76.9	71.5	67.7	63.9	59.4	60.8	61.6
70°	70.7	68.4	62.4	57.1	51.7	47.2	43.3	44.9	45.6
72.5°	57.8	54.8	49.5	43.3	38.8	32.7	30.5	31.9	31.9
75°	44.9	41.8	37.3	31.2	25.8	20.6	20.6	21.3	21.3
77.5°	33.4	30.5	25.8	20.6	15.9	12.2	13.0	13.0	13.0
80°	22.9	20.6	16.7	12.2	8.4	6.8	6.8	6.8	7.6
82.5°	13.0	11.4	9.1	6.1	3.8	3.8	3.8	3.8	3.8
85°	6.1	4.5	3.8	2.3	1.5	1.5	1.5	1.5	1.5
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)