

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: P581115

Luminaire Tested: **HC405D010-HM40525940-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581115
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: HC405D010-HM40525940-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 636.2 lumens
Efficiency: N/A
Efficacy: 106.0 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

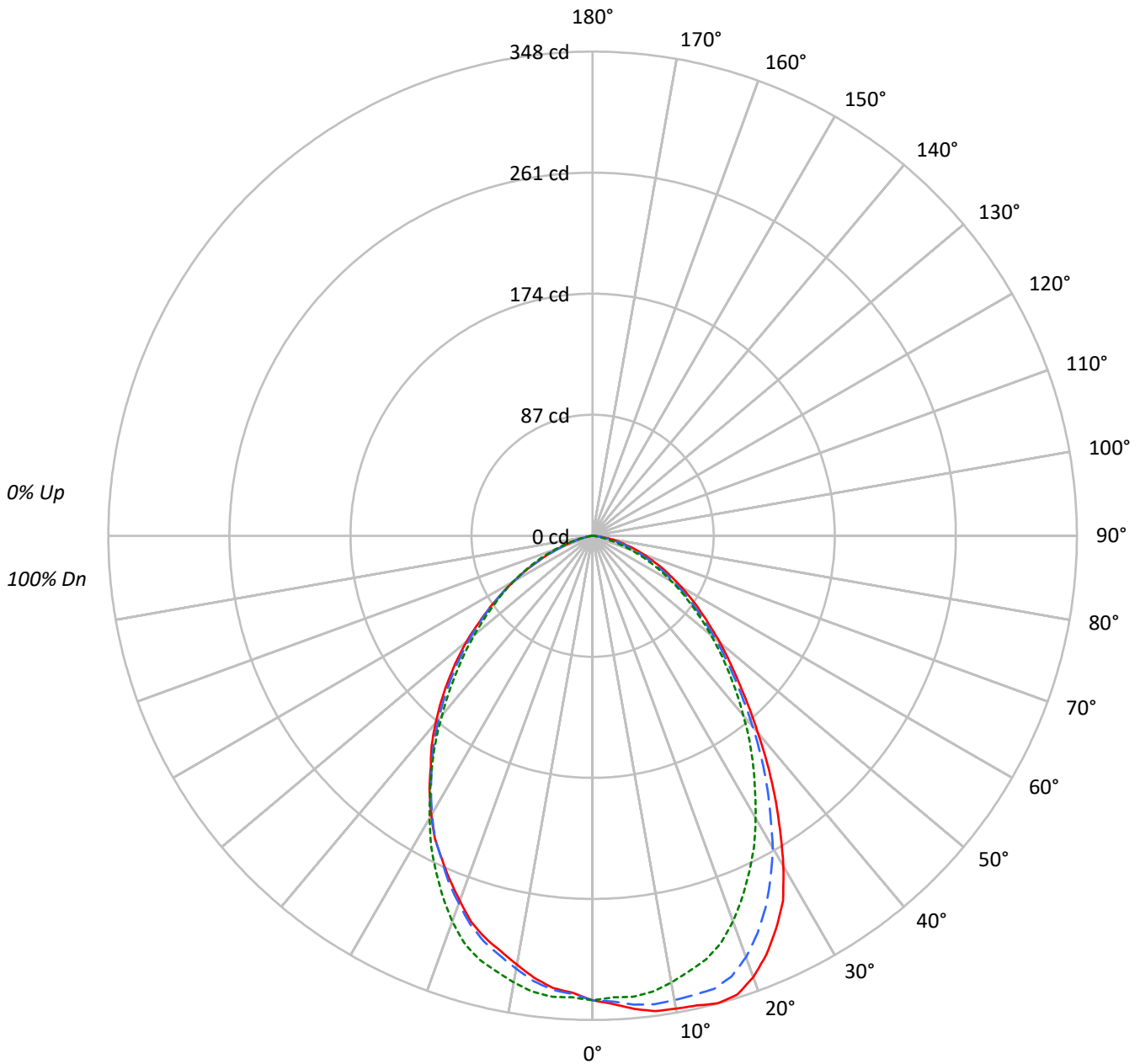
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	41173	41173	41173
5°	42259	41181	40401
10°	43211	40831	39203
15°	44426	40250	38181
20°	44301	38709	36635
25°	42435	36243	34882
30°	39039	33371	33015
35°	34332	30281	30537
40°	29724	27099	28242
45°	25817	24090	25538
50°	22912	21242	22682
55°	20322	18645	19419
60°	18107	16158	16158
65°	16111	13455	12579
70°	13921	10134	8980
75°	11676	6720	5528
80°	8879	3196	2983
85°	4670	1132	1132



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.6	5.0
10°-20°	89.6	14.1
20°-30°	126.4	19.9
30°-40°	130.6	20.5
40°-50°	110.7	17.4
50°-60°	80.5	12.7
60°-70°	47.1	7.4
70°-80°	17.5	2.7
80°-90°	2.3	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°	247.6	38.9
0°-40°	378.2	59.4
0°-60°	569.4	89.5
0°-90°	636.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	636.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	334	334	334	334	334	
5°	341	338	333	328	326	33
15°	348	337	315	302	299	98
25°	312	294	266	257	256	143
35°	228	218	201	202	203	142
45°	148	144	138	143	146	115
55°	94	90	87	90	90	85
65°	55	51	46	43	43	55
75°	24	20	14	11	12	26
85°	3	2	1	1	1	5
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°	333.8	333.8	333.8	333.8	333.8	333.8	333.8	333.8	333.8
2.5°	336.8	335.8	335.1	333.8	332.1	330.9	329.6	328.8	328.8
5°	341.3	340.0	338.3	335.5	332.6	330.1	327.6	326.3	326.3
7.5°	344.6	342.9	339.6	335.5	330.5	326.8	323.0	321.3	320.5
10°	345.0	343.3	338.8	332.6	326.0	320.1	316.0	313.5	313.0
12.5°	345.8	343.8	338.0	329.3	320.5	313.5	308.9	306.4	305.7
15°	347.9	345.0	337.1	326.0	315.2	306.9	301.9	299.8	299.0
17.5°	345.8	341.6	332.1	318.8	306.9	297.7	292.7	290.7	290.7
20°	337.5	333.3	322.2	307.7	294.9	286.1	281.1	279.9	279.1
22.5°	326.0	321.3	309.3	294.0	281.1	273.3	269.9	268.3	267.9
25°	311.8	307.2	294.4	278.6	266.3	259.6	256.6	256.6	256.3
27.5°	296.1	290.2	276.9	263.3	251.3	246.3	245.0	245.0	245.5
30°	274.1	269.9	258.8	245.5	234.3	231.0	231.0	231.8	231.8
32.5°	250.5	247.5	237.6	226.0	217.2	215.2	216.0	217.7	218.1
35°	228.0	224.7	218.1	207.7	201.1	200.3	201.6	202.8	202.8
37.5°	206.1	202.8	198.2	189.9	184.9	185.3	187.0	188.6	189.9
40°	184.6	182.1	178.8	172.1	168.3	170.0	172.1	173.8	175.4
42.5°	165.5	163.0	160.5	155.5	153.0	155.0	157.5	159.2	160.9
45°	148.0	146.4	143.9	139.7	138.1	140.2	143.0	144.7	146.4
47.5°	133.1	132.2	128.9	125.2	124.4	126.4	128.9	131.0	132.2
50°	119.4	118.2	115.3	111.6	110.7	114.1	115.7	116.9	118.2
52.5°	106.1	104.9	101.6	98.3	98.3	100.8	102.0	102.4	103.6
55°	94.5	93.3	90.0	87.5	86.7	88.8	89.6	89.6	90.3
57.5°	83.8	82.5	79.2	76.3	75.9	77.2	77.2	77.2	77.5
60°	73.4	72.2	68.8	66.4	65.5	65.9	65.5	65.1	65.5
62.5°	63.9	62.7	59.2	56.4	55.6	55.6	54.4	53.9	54.4
65°	55.2	53.1	50.6	47.7	46.1	44.8	43.1	43.1	43.1
67.5°	46.4	44.8	41.9	38.9	36.9	34.8	32.3	33.1	33.6
70°	38.6	37.3	34.0	31.1	28.1	25.8	23.6	24.5	24.9
72.5°	31.6	29.9	26.9	23.6	21.1	17.8	16.6	17.4	17.4
75°	24.5	22.8	20.3	17.0	14.1	11.2	11.2	11.6	11.6
77.5°	18.3	16.6	14.1	11.2	8.7	6.6	7.0	7.0	7.0
80°	12.5	11.2	9.1	6.6	4.5	3.7	3.7	3.7	4.2
82.5°	7.0	6.2	5.0	3.3	2.0	2.0	2.0	2.0	2.0
85°	3.3	2.5	2.0	1.2	0.8	0.8	0.8	0.8	0.8
87.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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)