

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: P580989

Luminaire Tested: **HC405D010-HM40525827-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580989
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-HM40525827-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 612.4 lumens
Efficiency: N/A
Efficacy: 102.1 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

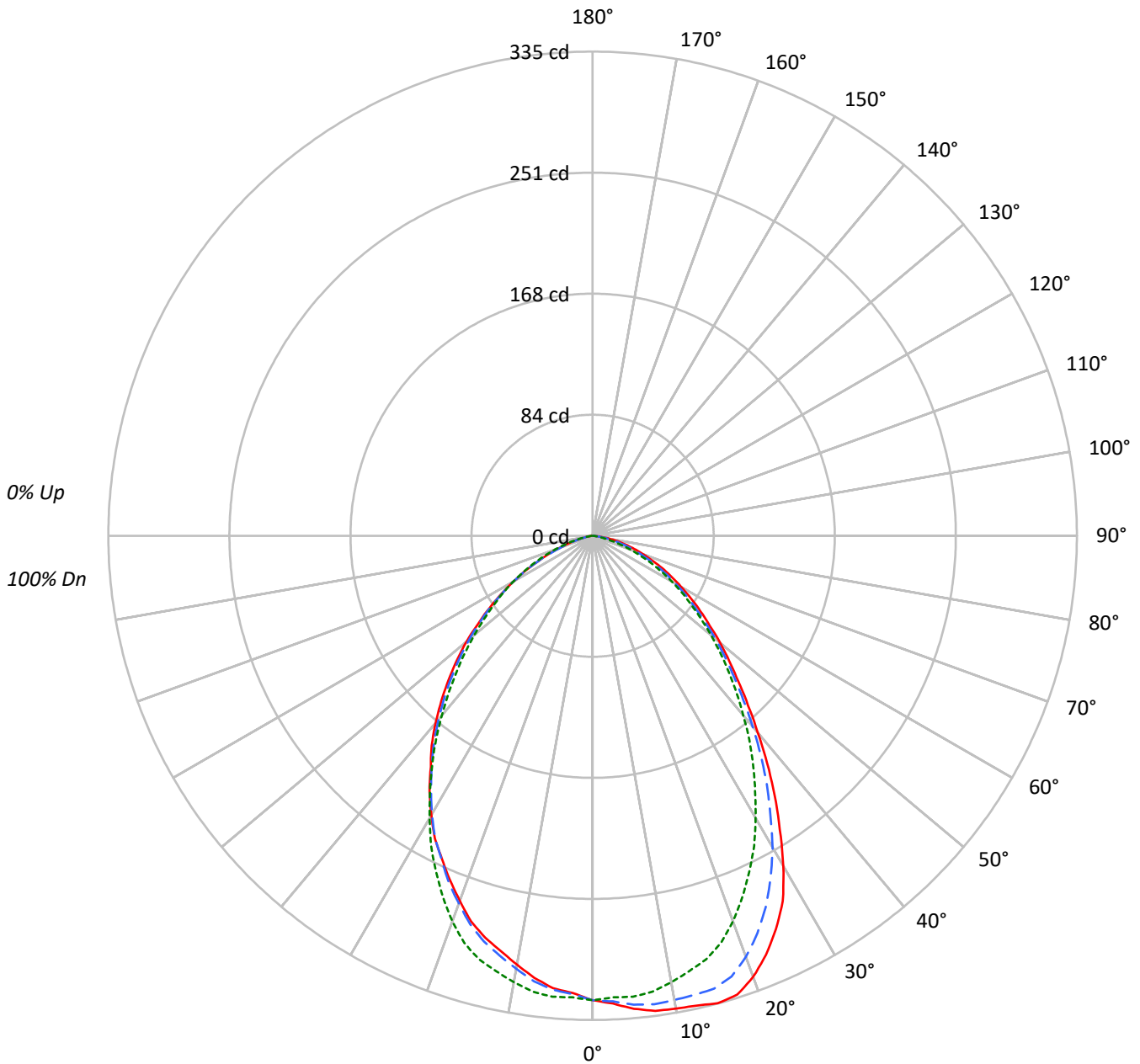
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	39631	39631	39631
5°	40674	39634	38903
10°	41595	39290	37737
15°	42753	38743	36738
20°	42634	37252	35270
25°	40843	34882	33561
30°	37572	32117	31776
35°	33052	29152	29393
40°	28596	26101	27196
45°	24840	23183	24578
50°	22068	20456	21818
55°	19569	17935	18731
60°	17416	15566	15566
65°	15498	12929	12112
70°	13380	9773	8619
75°	11199	6481	5290
80°	8453	3125	2841
85°	4529	1132	1132



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.4	5.0
10°-20°	86.3	14.1
20°-30°	121.7	19.9
30°-40°	125.7	20.5
40°-50°	106.5	17.4
50°-60°	77.5	12.7
60°-70°	45.3	7.4
70°-80°	16.8	2.7
80°-90°	2.2	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°	238.3	38.9
0°-40°	364.0	59.4
0°-60°	548.1	89.5
0°-90°	612.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	612.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	321	321	321	321	321	
5°	328	326	320	315	314	31
15°	335	324	303	291	288	94
25°	300	283	256	247	247	137
35°	220	210	194	194	195	137
45°	142	138	133	138	141	111
55°	91	87	83	86	87	82
65°	53	49	44	42	42	53
75°	24	20	14	11	11	25
85°	3	2	1	1	1	4
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°	321.3	321.3	321.3	321.3	321.3	321.3	321.3	321.3	321.3
2.5°	324.0	323.2	322.5	321.3	319.7	318.5	317.3	316.6	316.6
5°	328.5	327.3	325.7	322.9	320.1	317.7	315.3	314.2	314.2
7.5°	331.6	330.1	326.9	322.9	318.1	314.5	310.9	309.3	308.5
10°	332.1	330.5	326.1	320.1	313.7	308.2	304.2	301.8	301.3
12.5°	332.9	330.9	325.3	316.9	308.5	301.8	297.4	295.0	294.2
15°	334.8	332.1	324.5	313.7	303.4	295.3	290.6	288.5	287.7
17.5°	332.9	328.9	319.7	306.9	295.3	286.6	281.8	279.8	279.8
20°	324.8	320.9	310.1	296.1	283.8	275.4	270.6	269.4	268.7
22.5°	313.7	309.3	297.7	283.0	270.6	263.0	259.8	258.2	257.9
25°	300.1	295.8	283.4	268.2	256.3	249.8	247.1	247.1	246.6
27.5°	285.0	279.4	266.6	253.4	241.9	237.1	235.9	235.9	236.3
30°	263.8	259.8	249.0	236.3	225.5	222.3	222.3	223.1	223.1
32.5°	241.1	238.2	228.7	217.6	209.2	207.1	207.9	209.5	210.0
35°	219.5	216.3	210.0	200.0	193.6	192.8	194.0	195.2	195.2
37.5°	198.4	195.2	190.8	182.8	178.0	178.4	180.0	181.6	182.8
40°	177.6	175.2	172.1	165.6	162.1	163.7	165.6	167.2	168.9
42.5°	159.2	156.9	154.5	149.7	147.3	149.3	151.6	153.2	154.8
45°	142.4	140.9	138.5	134.5	132.9	135.0	137.7	139.3	140.9
47.5°	128.1	127.3	124.2	120.5	119.7	121.8	124.2	126.1	127.3
50°	115.0	113.7	111.0	107.4	106.6	109.8	111.3	112.6	113.7
52.5°	102.2	101.0	97.8	94.5	94.5	97.0	98.2	98.6	99.8
55°	91.0	89.8	86.6	84.2	83.4	85.5	86.3	86.3	87.1
57.5°	80.6	79.4	76.3	73.4	73.1	74.2	74.2	74.2	74.7
60°	70.6	69.5	66.3	63.9	63.1	63.4	63.1	62.7	63.1
62.5°	61.5	60.3	57.1	54.3	53.5	53.5	52.3	51.9	52.3
65°	53.1	51.1	48.7	45.9	44.3	43.1	41.5	41.5	41.5
67.5°	44.7	43.1	40.3	37.6	35.5	33.5	31.1	31.9	32.3
70°	37.1	35.9	32.7	30.0	27.1	24.7	22.7	23.5	23.9
72.5°	30.3	28.7	26.0	22.7	20.3	17.1	16.0	16.8	16.8
75°	23.5	21.9	19.5	16.3	13.6	10.8	10.8	11.1	11.1
77.5°	17.6	16.0	13.6	10.8	8.4	6.4	6.8	6.8	6.8
80°	11.9	10.8	8.7	6.4	4.4	3.6	3.6	3.6	4.0
82.5°	6.8	6.0	4.8	3.2	2.0	2.0	2.0	2.0	2.0
85°	3.2	2.4	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)