

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: P581024

Luminaire Tested: **HC405D010-HM40525835-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581024
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC405D010-HM40525835-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 691.1 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

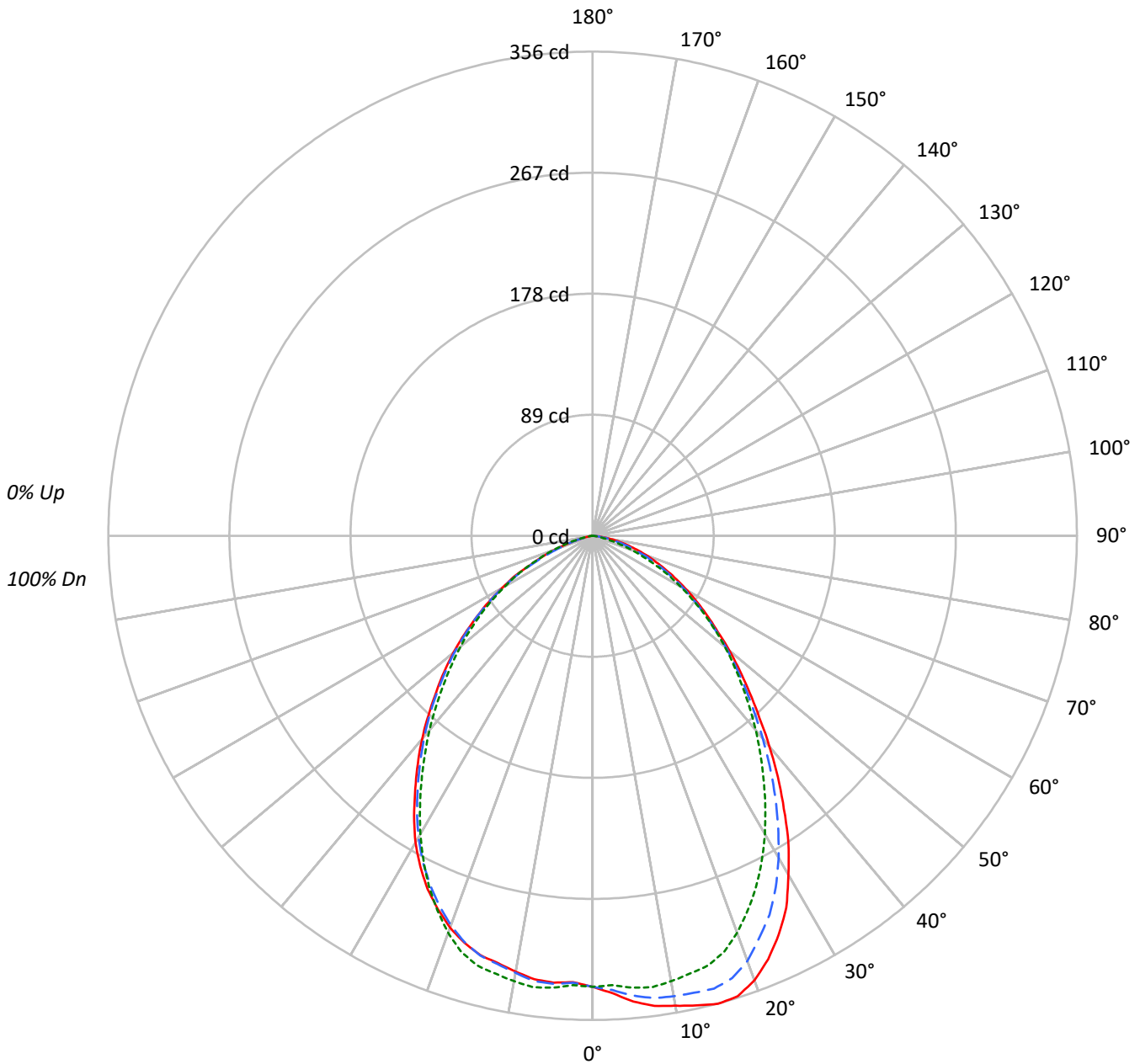
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				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	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76			76
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67			67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58			58
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52			52
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46			46
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41			41
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37			37
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34			34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	40901	40901	40901
5°	42568	41293	40835
10°	43950	41658	40756
15°	45498	41782	40761
20°	45653	40770	40245
25°	44041	38720	39033
30°	40976	36063	37088
35°	36922	33007	34211
40°	32541	30030	31398
45°	28451	27038	28363
50°	25195	24351	25637
55°	22171	21505	22365
60°	19785	18329	18897
65°	17395	14914	14651
70°	15183	10999	10026
75°	12581	6577	5338
80°	9518	2557	1634
85°	4529	708	708



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.0	4.6
10°-20°	93.4	13.5
20°-30°	135.2	19.6
30°-40°	142.6	20.6
40°-50°	123.4	17.9
50°-60°	91.5	13.2
60°-70°	52.7	7.6
70°-80°	18.4	2.7
80°-90°	2.0	0.3
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°	260.5	37.7
0°-40°	403.2	58.3
0°-60°	618.1	89.4
0°-90°	691.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	691.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	332	332	332	332	332	
5°	344	339	334	331	330	33
15°	356	345	327	320	319	100
25°	324	308	284	283	287	148
35°	245	234	219	224	227	153
45°	163	159	155	161	163	127
55°	103	101	100	104	104	93
65°	60	56	51	48	50	60
75°	26	22	14	11	11	28
85°	3	2	0	0	0	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°	331.6	331.6	331.6	331.6	331.6	331.6	331.6	331.6	331.6
2.5°	336.6	335.7	334.4	332.6	330.7	329.4	328.9	328.5	328.5
5°	343.8	342.0	339.3	335.7	333.5	332.1	330.7	329.8	329.8
7.5°	348.7	346.9	342.9	337.9	334.8	332.1	330.3	328.9	328.9
10°	350.9	348.7	343.8	337.4	332.6	328.9	326.3	325.4	325.4
12.5°	353.7	350.9	344.2	336.2	329.8	325.4	322.7	321.8	321.8
15°	356.3	353.2	344.7	335.3	327.2	321.8	319.5	319.2	319.2
17.5°	354.9	350.9	341.1	329.8	320.9	315.5	313.3	313.3	313.7
20°	347.8	343.8	332.6	320.0	310.6	306.6	304.7	305.7	306.6
22.5°	337.0	332.1	320.0	307.9	298.1	294.4	294.4	295.8	297.1
25°	323.6	319.2	307.5	294.0	284.5	281.9	282.8	285.0	286.8
27.5°	308.4	303.4	291.4	278.8	269.3	268.0	270.2	273.4	274.3
30°	287.7	283.8	273.4	261.3	253.2	252.8	255.9	258.2	260.4
32.5°	268.0	263.5	253.7	242.0	236.2	236.6	240.3	242.9	244.3
35°	245.2	241.1	233.9	224.5	219.2	220.1	224.0	226.8	227.2
37.5°	223.6	221.0	213.8	206.6	202.6	204.4	207.9	211.1	211.1
40°	202.1	199.9	194.5	188.6	186.5	188.6	192.3	195.0	195.0
42.5°	181.5	180.1	175.7	171.6	170.4	173.4	176.6	178.9	178.4
45°	163.1	161.9	158.7	155.5	155.0	158.2	160.9	162.2	162.6
47.5°	146.5	145.6	143.0	140.7	140.7	143.9	146.1	147.4	147.9
50°	131.3	130.4	128.1	126.4	126.9	130.0	131.8	133.1	133.6
52.5°	116.1	115.7	113.8	111.6	112.9	115.2	117.5	118.3	118.7
55°	103.1	103.1	100.8	99.1	100.0	102.2	103.5	104.0	104.0
57.5°	91.5	91.0	88.3	86.5	86.9	89.2	90.1	90.6	90.6
60°	80.2	79.8	77.1	74.3	74.3	75.7	76.2	76.6	76.6
62.5°	69.5	69.0	65.8	63.7	62.8	62.3	62.3	63.2	65.0
65°	59.6	59.1	56.1	52.4	51.1	49.7	48.4	49.3	50.2
67.5°	50.6	49.7	46.6	43.5	40.3	38.1	35.9	37.2	39.0
70°	42.1	41.2	37.7	34.0	30.5	26.9	25.1	26.9	27.8
72.5°	34.0	33.1	29.6	26.0	21.6	17.9	17.5	17.9	18.4
75°	26.4	26.0	22.4	18.4	13.8	11.2	11.2	11.2	11.2
77.5°	19.7	18.8	15.2	11.7	8.1	6.2	5.8	5.8	5.8
80°	13.4	12.6	9.4	6.7	3.6	2.7	2.7	2.3	2.3
82.5°	7.6	7.2	4.9	2.7	1.4	0.9	0.9	0.9	0.9
85°	3.2	2.7	1.8	0.9	0.5	0.5	0.5	0.5	0.5
87.5°	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
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)