

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: P581114

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581114
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-HM40525940-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 639.6 lumens
Efficiency: N/A
Efficacy: 106.6 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

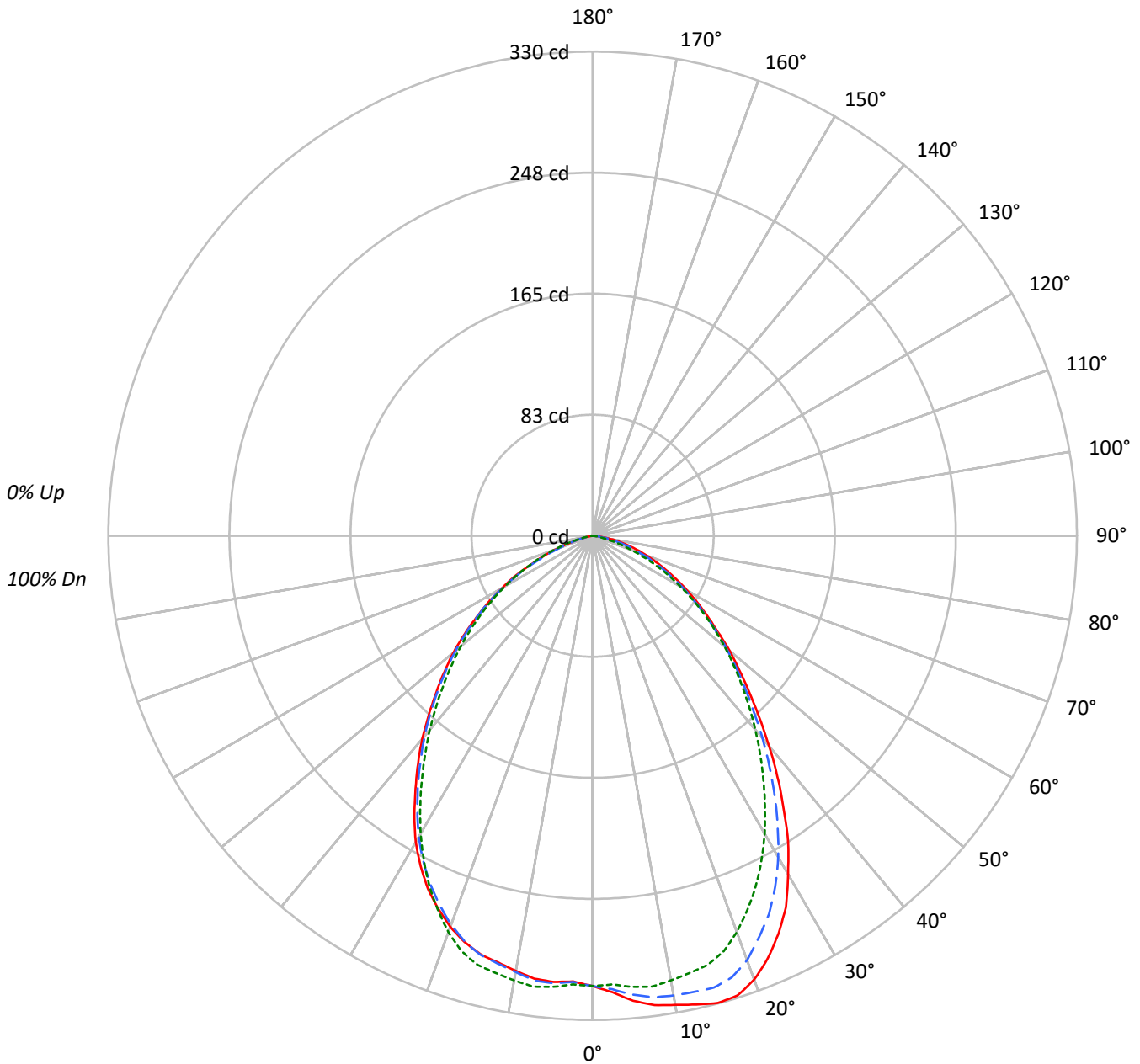
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	37855	37855	37855
5°	39386	38210	37789
10°	40668	38539	37712
15°	42102	38667	37709
20°	42253	37725	37226
25°	40747	35834	36134
30°	37928	33385	34325
35°	34166	30537	31666
40°	30110	27775	29063
45°	26340	25032	26253
50°	23334	22528	23718
55°	20494	19892	20687
60°	18304	16997	17490
65°	16111	13805	13542
70°	14029	10134	9304
75°	11676	6100	4909
80°	8879	2344	1421
85°	4246	708	708



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.6	4.6
10°-20°	86.4	13.5
20°-30°	125.1	19.6
30°-40°	132.0	20.6
40°-50°	114.2	17.9
50°-60°	84.6	13.2
60°-70°	48.8	7.6
70°-80°	17.0	2.7
80°-90°	1.8	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°	241.1	37.7
0°-40°	373.1	58.3
0°-60°	571.9	89.4
0°-90°	639.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	639.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	307	307	307	307	307	
5°	318	314	309	306	305	31
15°	330	319	303	296	295	93
25°	299	284	263	262	266	137
35°	227	216	203	207	210	142
45°	151	147	144	149	150	117
55°	95	93	92	96	96	86
65°	55	52	47	45	46	55
75°	24	21	13	10	10	26
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°	306.9	306.9	306.9	306.9	306.9	306.9	306.9	306.9	306.9
2.5°	311.4	310.6	309.4	307.7	306.1	304.9	304.4	304.0	304.0
5°	318.1	316.4	313.9	310.6	308.6	307.4	306.1	305.2	305.2
7.5°	322.7	321.0	317.2	312.7	309.9	307.4	305.7	304.4	304.4
10°	324.7	322.7	318.1	312.4	307.7	304.4	301.9	301.1	301.1
12.5°	327.2	324.7	318.5	311.1	305.2	301.1	298.6	297.8	297.8
15°	329.7	326.8	318.9	310.2	302.8	297.8	295.7	295.3	295.3
17.5°	328.5	324.7	315.6	305.2	296.9	292.0	289.9	289.9	290.3
20°	321.9	318.1	307.7	296.1	287.4	283.6	282.0	282.8	283.6
22.5°	311.9	307.4	296.1	284.9	275.8	272.5	272.5	273.8	275.0
25°	299.4	295.3	284.5	272.1	263.3	260.8	261.7	263.8	265.5
27.5°	285.3	280.8	269.6	258.0	249.2	248.0	250.0	253.0	253.8
30°	266.3	262.5	253.0	241.8	234.4	233.9	236.9	238.9	241.0
32.5°	248.0	243.9	234.7	223.9	218.6	218.9	222.3	224.8	226.1
35°	226.9	223.1	216.4	207.8	202.8	203.6	207.4	209.9	210.3
37.5°	206.9	204.4	197.8	191.2	187.5	189.1	192.5	195.3	195.3
40°	187.0	185.0	180.0	174.6	172.5	174.6	178.0	180.5	180.5
42.5°	168.0	166.7	162.5	158.9	157.7	160.5	163.4	165.5	165.0
45°	151.0	149.7	146.9	143.9	143.5	146.4	148.9	150.2	150.5
47.5°	135.6	134.8	132.3	130.2	130.2	133.1	135.2	136.4	136.9
50°	121.6	120.7	118.6	116.9	117.4	120.3	121.9	123.1	123.6
52.5°	107.4	107.0	105.3	103.3	104.5	106.6	108.6	109.5	109.9
55°	95.3	95.3	93.3	91.7	92.5	94.5	95.8	96.2	96.2
57.5°	84.6	84.2	81.7	80.0	80.5	82.5	83.3	83.8	83.8
60°	74.2	73.8	71.4	68.9	68.9	70.1	70.5	70.9	70.9
62.5°	64.2	63.9	60.9	58.9	58.1	57.7	57.7	58.5	60.2
65°	55.2	54.7	51.9	48.6	47.3	46.1	44.8	45.6	46.4
67.5°	46.9	46.1	43.1	40.2	37.3	35.3	33.1	34.4	36.1
70°	38.9	38.1	34.8	31.6	28.1	24.9	23.3	24.9	25.8
72.5°	31.6	30.6	27.4	24.1	19.9	16.6	16.2	16.6	17.0
75°	24.5	24.1	20.8	17.0	12.8	10.3	10.3	10.3	10.3
77.5°	18.3	17.4	14.1	10.8	7.5	5.8	5.4	5.4	5.4
80°	12.5	11.6	8.7	6.2	3.3	2.5	2.5	2.0	2.0
82.5°	7.0	6.6	4.5	2.5	1.2	0.8	0.8	0.8	0.8
85°	3.0	2.5	1.7	0.8	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)