

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: P581007

Luminaire Tested: **HC405D010-HM40525830-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581007
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-HM40525830-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 663.4 lumens
Efficiency: N/A
Efficacy: 110.6 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

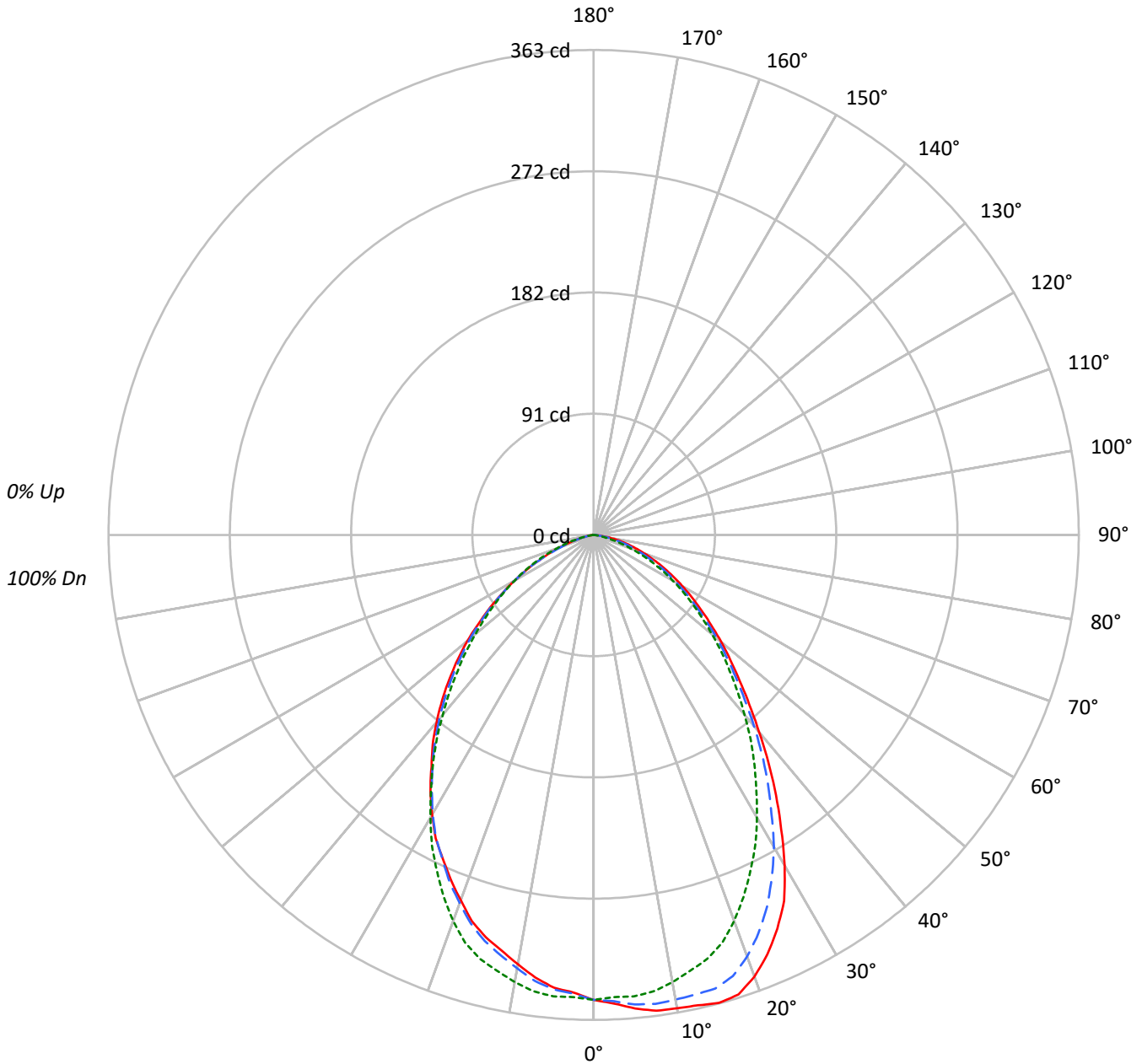
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	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°	42924	42924	42924
5°	44054	42927	42135
10°	45052	42559	40881
15°	46316	41961	39803
20°	46178	40350	38184
25°	44245	37767	36365
30°	40706	34795	34410
35°	35807	31561	31847
40°	30980	28258	29434
45°	26933	25101	26637
50°	23891	22144	23660
55°	21182	19419	20257
60°	18872	16849	16849
65°	16782	14009	13105
70°	14498	10603	9377
75°	12153	7053	5767
80°	9163	3410	3054
85°	4812	1274	1274



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.0	5.0
10°-20°	93.4	14.1
20°-30°	131.8	19.9
30°-40°	136.1	20.5
40°-50°	115.4	17.4
50°-60°	84.0	12.7
60°-70°	49.1	7.4
70°-80°	18.2	2.7
80°-90°	2.4	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°	258.2	38.9
0°-40°	394.3	59.4
0°-60°	593.6	89.5
0°-90°	663.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	663.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	348	348	348	348	348	
5°	356	353	347	342	340	34
15°	363	352	329	315	312	102
25°	325	307	278	268	267	149
35°	238	227	210	210	212	149
45°	154	150	144	149	153	120
55°	98	94	90	93	94	89
65°	58	53	48	45	45	57
75°	26	21	15	12	12	27
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°	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0
2.5°	351.1	350.1	349.4	348.0	346.3	344.9	343.7	342.8	342.8
5°	355.8	354.5	352.8	349.7	346.7	344.1	341.5	340.3	340.3
7.5°	359.2	357.5	354.0	349.7	344.6	340.6	336.8	335.1	334.1
10°	359.7	358.0	353.2	346.7	339.8	333.7	329.4	326.8	326.4
12.5°	360.6	358.4	352.3	343.2	334.1	326.8	322.1	319.5	318.6
15°	362.7	359.7	351.5	339.8	328.6	320.0	314.7	312.6	311.7
17.5°	360.6	356.2	346.3	332.4	320.0	310.4	305.2	303.0	303.0
20°	351.8	347.5	335.8	320.8	307.4	298.3	293.1	291.8	290.9
22.5°	339.8	335.1	322.5	306.4	293.1	284.9	281.5	279.7	279.3
25°	325.1	320.3	306.9	290.6	277.5	270.6	267.6	267.6	267.2
27.5°	308.7	302.6	288.7	274.6	262.0	256.7	255.5	255.5	255.9
30°	285.8	281.5	269.8	255.9	244.3	240.8	240.8	241.6	241.6
32.5°	261.2	258.1	247.7	235.6	226.5	224.4	225.2	227.0	227.3
35°	237.8	234.3	227.3	216.6	209.6	208.8	210.1	211.5	211.5
37.5°	214.9	211.5	206.7	197.9	192.8	193.3	195.0	196.7	197.9
40°	192.4	189.8	186.4	179.4	175.5	177.3	179.4	181.1	182.8
42.5°	172.5	169.9	167.3	162.1	159.5	161.7	164.2	166.1	167.8
45°	154.4	152.7	150.0	145.7	143.9	146.1	149.1	150.8	152.7
47.5°	138.8	137.9	134.5	130.5	129.7	131.9	134.5	136.7	137.9
50°	124.5	123.3	120.2	116.3	115.4	118.8	120.7	121.9	123.3
52.5°	110.7	109.4	105.9	102.5	102.5	105.1	106.3	106.8	108.1
55°	98.5	97.3	93.9	91.3	90.3	92.5	93.4	93.4	94.2
57.5°	87.3	86.0	82.5	79.6	79.1	80.4	80.4	80.4	80.8
60°	76.5	75.3	71.7	69.1	68.3	68.8	68.3	67.9	68.3
62.5°	66.6	65.3	61.9	58.8	57.9	57.9	56.6	56.2	56.6
65°	57.5	55.4	52.8	49.7	48.0	46.6	44.9	44.9	44.9
67.5°	48.5	46.6	43.7	40.6	38.5	36.3	33.7	34.6	35.1
70°	40.2	38.9	35.4	32.5	29.4	26.8	24.6	25.5	26.0
72.5°	32.8	31.1	28.1	24.6	22.0	18.6	17.3	18.2	18.2
75°	25.5	23.7	21.2	17.7	14.8	11.7	11.7	12.1	12.1
77.5°	19.1	17.3	14.8	11.7	9.1	6.9	7.4	7.4	7.4
80°	12.9	11.7	9.5	6.9	4.8	3.9	3.9	3.9	4.3
82.5°	7.4	6.5	5.2	3.4	2.2	2.2	2.2	2.2	2.2
85°	3.4	2.6	2.2	1.2	0.9	0.9	0.9	0.9	0.9
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)