

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: P580991

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580991
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC405D010-HM40525827-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 606.0 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

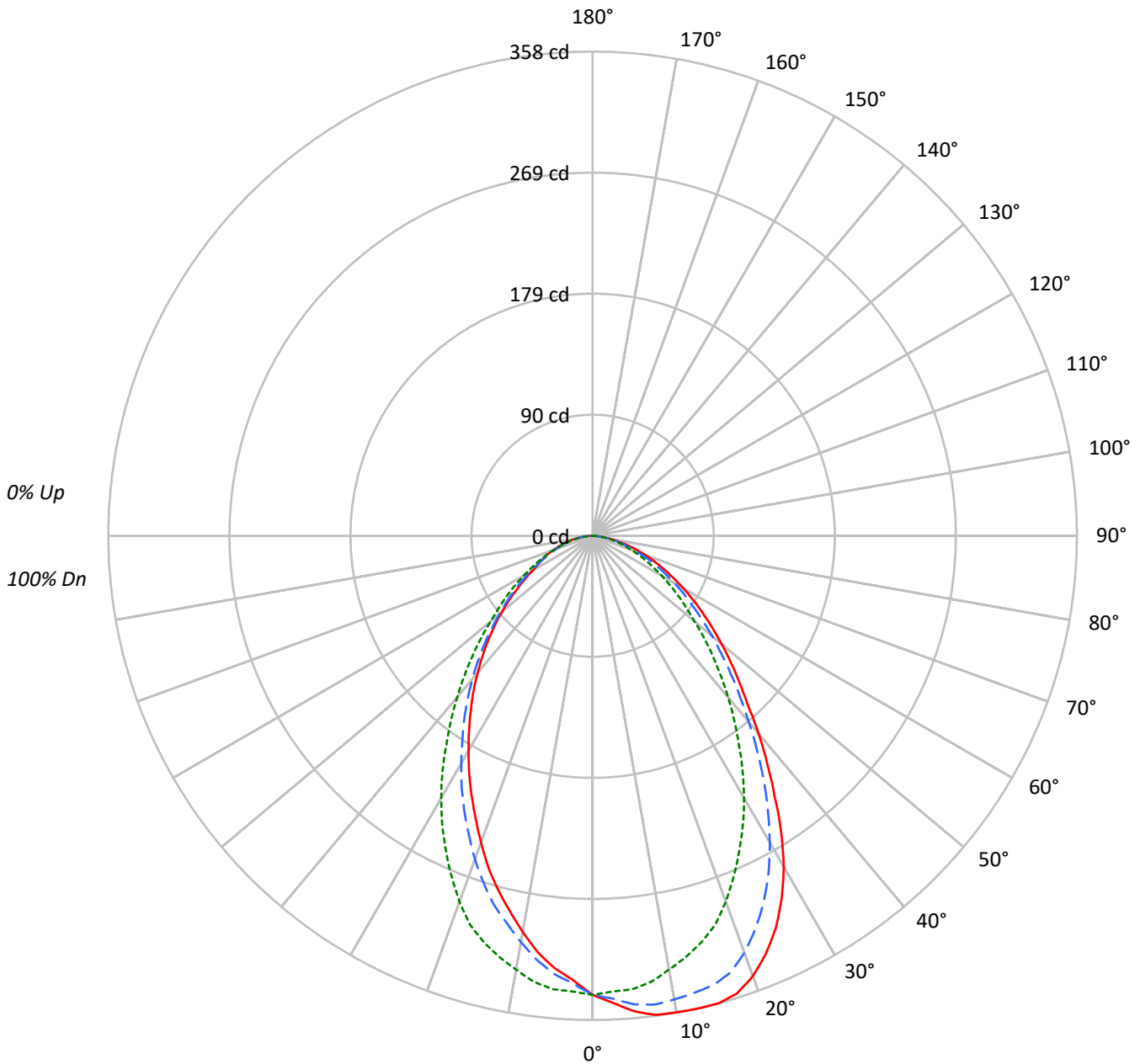
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76				
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	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	42	37	47	41	37	46	41	37	35				35				
10	59	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°	41864	41864	41864
5°	43707	41664	39745
10°	44814	40793	37261
15°	45728	39714	34568
20°	45482	37777	31660
25°	43578	34936	28798
30°	40250	31889	26107
35°	35295	28369	23626
40°	30722	25070	21270
45°	26741	21874	19014
50°	23833	18844	16771
55°	21290	16580	14494
60°	19020	14481	12507
65°	16899	12696	11879
70°	14822	10927	11108
75°	12534	9293	10294
80°	9660	7885	9376
85°	5661	6227	7925



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.8	5.2
10°-20°	87.7	14.5
20°-30°	119.9	19.8
30°-40°	120.4	19.9
40°-50°	99.6	16.4
50°-60°	72.2	11.9
60°-70°	45.7	7.5
70°-80°	23.1	3.8
80°-90°	5.7	0.9
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°	239.4	39.5
0°-40°	359.8	59.4
0°-60°	531.5	87.7
0°-90°	606.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	606.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	339	339	339	339	339	
5°	353	348	336	325	321	34
15°	358	344	311	282	271	101
25°	320	299	257	224	212	146
35°	234	220	188	165	157	147
45°	153	144	125	113	109	119
55°	99	90	77	70	67	89
65°	58	52	44	39	41	58
75°	26	23	20	20	22	28
85°	4	4	4	5	6	6
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°	339.4	339.4	339.4	339.4	339.4	339.4	339.4	339.4	339.4
2.5°	345.7	344.6	342.5	340.2	337.3	334.1	331.4	329.7	328.9
5°	353.0	351.3	347.8	342.5	336.5	330.6	325.4	322.2	321.0
7.5°	357.3	354.9	349.7	341.7	332.6	323.8	316.2	311.8	310.6
10°	357.8	354.9	348.1	337.3	325.7	314.2	305.0	298.6	297.5
12.5°	358.1	354.6	346.2	333.3	319.0	304.6	293.4	285.9	283.9
15°	358.1	354.6	344.1	328.9	311.0	294.6	282.3	273.5	270.7
17.5°	354.9	350.9	338.6	321.0	301.5	283.1	268.7	259.5	256.7
20°	346.5	342.2	328.1	309.1	287.8	268.7	254.4	244.7	241.2
22.5°	334.6	329.4	314.6	293.9	272.6	253.1	239.1	229.2	226.0
25°	320.2	315.0	299.1	278.6	256.7	238.4	224.4	215.2	211.6
27.5°	302.6	297.0	281.5	261.0	240.7	222.3	209.6	201.2	197.6
30°	282.6	276.7	262.0	242.3	223.9	206.5	194.1	187.3	183.3
32.5°	259.5	254.4	241.2	223.6	206.5	189.7	179.2	173.3	170.0
35°	234.4	231.5	220.4	205.2	188.4	174.4	165.3	159.7	156.9
37.5°	212.0	209.2	199.6	186.8	172.1	159.2	151.7	146.9	144.5
40°	190.8	188.4	179.2	168.4	155.7	144.5	138.1	134.5	132.1
42.5°	170.0	168.9	161.3	151.3	140.2	130.5	125.4	122.6	120.5
45°	153.3	151.7	144.5	135.0	125.4	117.4	112.9	111.0	109.0
47.5°	138.6	136.5	128.9	120.5	111.8	104.6	100.6	98.6	97.8
50°	124.2	122.1	115.4	107.0	98.2	93.1	89.8	87.8	87.4
52.5°	111.3	109.4	101.8	93.9	87.1	82.6	79.9	77.9	77.1
55°	99.0	96.6	90.2	82.6	77.1	73.1	70.3	68.2	67.4
57.5°	87.8	85.5	79.9	72.6	67.4	63.9	61.5	59.5	58.7
60°	77.1	75.0	69.9	63.1	58.7	55.5	53.1	51.5	50.7
62.5°	67.1	65.5	60.3	54.3	50.7	47.9	46.0	44.3	45.1
65°	57.9	56.3	51.5	46.3	43.5	40.7	39.2	39.2	40.7
67.5°	49.1	47.6	43.5	39.2	36.8	34.7	33.5	34.7	36.0
70°	41.1	39.5	36.0	32.3	30.3	28.7	28.7	30.0	30.8
72.5°	33.5	31.9	29.2	26.3	24.7	23.6	24.7	25.5	26.3
75°	26.3	25.2	22.7	20.8	19.5	19.2	20.3	21.1	21.6
77.5°	19.5	18.7	17.1	15.5	14.8	15.2	16.3	16.8	17.1
80°	13.6	13.2	12.0	11.1	11.1	11.6	12.4	12.8	13.2
82.5°	8.4	8.4	7.6	7.2	7.6	8.4	8.7	9.2	9.2
85°	4.0	4.4	4.0	4.0	4.4	5.2	5.2	5.6	5.6
87.5°	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0	2.4
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)