

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: P581046

Luminaire Tested: **HC405D010-HM40525840-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581046
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC405D010-HM40525840-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 696.0 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

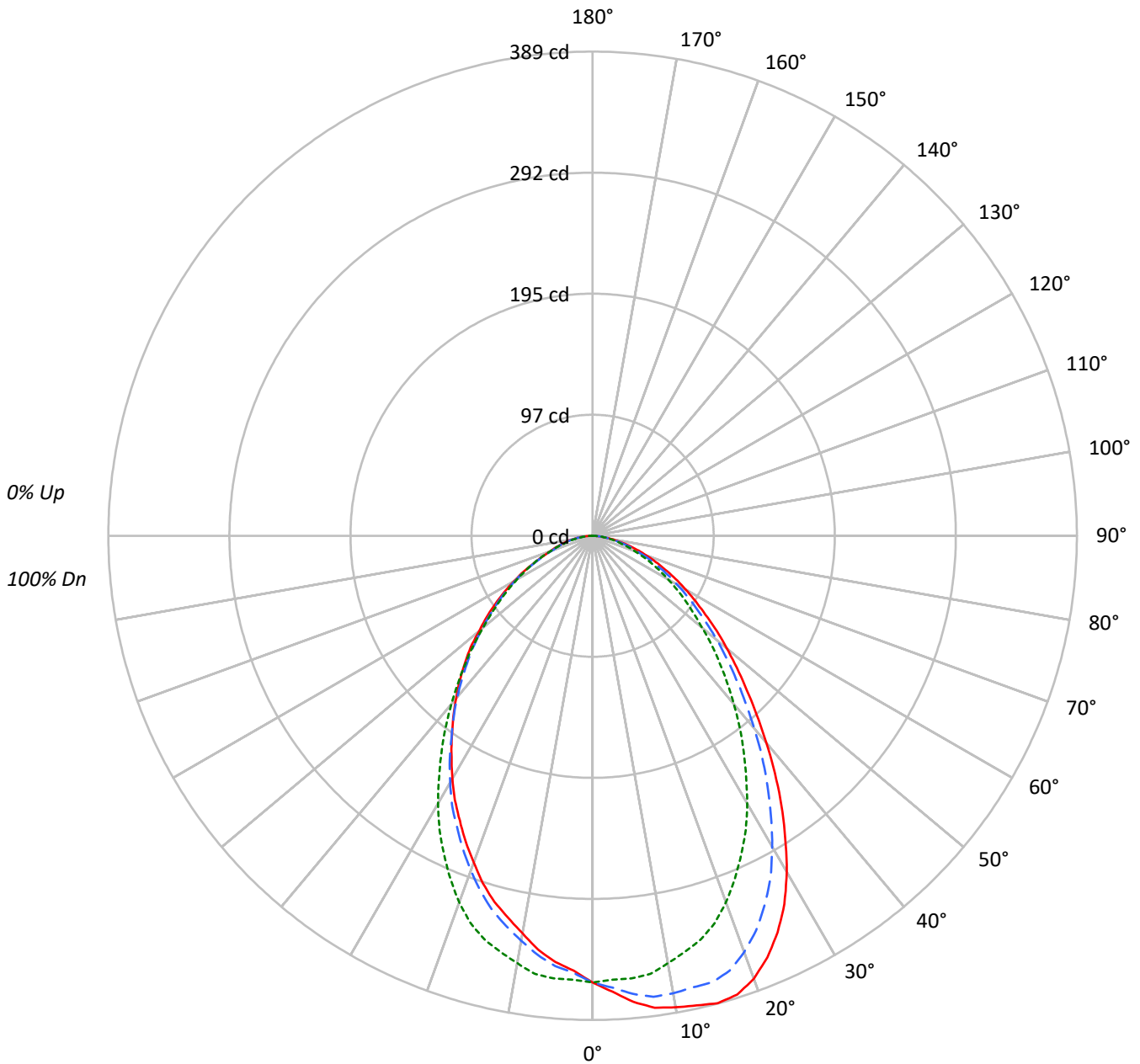
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58																			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46																			
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41																			
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	44269	44269	44269
5°	46543	44203	42556
10°	48183	43674	40618
15°	49636	42881	38884
20°	49696	41124	36648
25°	47838	38434	34351
30°	44423	35365	32089
35°	39828	31847	29679
40°	34941	28403	27453
45°	30526	25136	25311
50°	26961	22010	22797
55°	23763	19526	20494
60°	21240	17268	17959
65°	18825	15206	15206
70°	16445	12983	12983
75°	14059	10961	12296
80°	11152	9802	11152
85°	7218	8491	10473



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.0	4.9
10°-20°	95.7	13.8
20°-30°	134.1	19.3
30°-40°	138.2	19.9
40°-50°	117.7	16.9
50°-60°	87.2	12.5
60°-70°	54.7	7.9
70°-80°	27.2	3.9
80°-90°	7.1	1.0
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°	263.9	37.9
0°-40°	402.1	57.8
0°-60°	606.9	87.2
0°-90°	696.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	696.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	359	359	359	359	359	
5°	376	369	357	347	344	36
15°	389	371	336	311	304	109
25°	352	327	282	258	252	161
35°	264	245	212	198	197	165
45°	175	163	144	141	145	136
55°	110	102	91	93	95	100
65°	64	58	52	51	52	64
75°	30	26	23	25	26	32
85°	5	5	6	7	7	7
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°	358.9	358.9	358.9	358.9	358.9	358.9	358.9	358.9	358.9
2.5°	366.7	365.4	363.4	360.2	357.0	354.2	351.5	350.1	349.7
5°	375.9	373.2	369.4	363.4	357.0	351.5	346.9	344.6	343.7
7.5°	382.4	379.5	373.6	364.3	355.1	346.9	339.5	336.3	335.4
10°	384.7	381.5	373.2	360.7	348.7	338.6	330.3	326.2	324.3
12.5°	386.5	382.4	371.7	357.0	342.3	329.8	321.1	315.5	314.2
15°	388.7	384.2	371.3	353.3	335.8	321.1	311.4	306.3	304.5
17.5°	386.5	381.5	366.3	345.9	326.2	310.0	299.4	294.9	292.9
20°	378.6	373.2	356.0	334.5	313.3	296.7	286.0	281.5	279.2
22.5°	366.7	360.7	343.2	320.2	298.5	282.4	272.3	267.6	266.3
25°	351.5	345.5	327.1	303.6	282.4	266.7	258.0	253.8	252.4
27.5°	333.5	327.6	309.5	286.5	266.3	251.5	244.6	240.5	239.5
30°	311.9	305.9	288.4	267.2	248.3	234.5	228.9	225.8	225.3
32.5°	287.9	282.8	266.7	247.3	229.4	217.9	213.7	211.5	211.0
35°	264.5	258.9	244.6	227.1	211.5	201.3	197.6	197.1	197.1
37.5°	240.5	234.9	223.4	207.3	194.0	184.8	183.3	183.8	183.8
40°	217.0	211.9	201.8	188.4	176.4	169.6	169.1	170.0	170.5
42.5°	194.9	190.7	181.5	170.0	159.8	154.4	154.8	156.6	158.0
45°	175.0	171.4	163.1	152.9	144.1	140.1	141.4	143.7	145.1
47.5°	157.1	153.9	146.1	136.8	129.4	126.7	128.5	131.3	133.1
50°	140.5	137.8	130.4	120.7	114.7	112.8	115.2	117.9	118.8
52.5°	125.8	123.0	115.2	106.9	102.3	101.4	103.6	105.9	107.4
55°	110.5	108.3	101.8	94.4	90.8	90.2	92.6	94.4	95.3
57.5°	98.1	95.8	89.8	83.4	80.1	79.7	81.9	83.4	83.9
60°	86.1	83.9	78.3	72.3	70.0	70.0	71.4	72.3	72.8
62.5°	75.1	72.8	67.8	62.7	60.8	60.8	60.8	61.3	62.7
65°	64.5	62.7	58.0	53.5	52.1	51.2	51.2	51.2	52.1
67.5°	54.8	53.0	49.3	45.2	43.8	42.3	41.9	42.8	42.8
70°	45.6	44.3	40.5	37.3	36.0	34.5	34.0	36.0	36.0
72.5°	37.3	36.0	33.6	30.4	29.1	28.6	29.5	30.4	30.9
75°	29.5	28.1	26.2	24.4	23.0	23.5	24.9	25.3	25.8
77.5°	22.1	21.7	19.9	18.4	18.4	18.8	19.9	20.8	21.2
80°	15.7	15.2	14.3	13.4	13.8	14.8	15.2	16.1	15.7
82.5°	9.6	9.6	9.2	9.2	9.6	10.6	11.0	11.5	12.0
85°	5.1	5.1	5.1	5.6	6.0	6.5	6.9	7.4	7.4
87.5°	1.4	1.8	1.8	2.3	2.7	2.7	3.2	3.2	3.2
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)