

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: P581028

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581028
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-HM40525835-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 677.2 lumens
Efficiency: N/A
Efficacy: 112.9 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

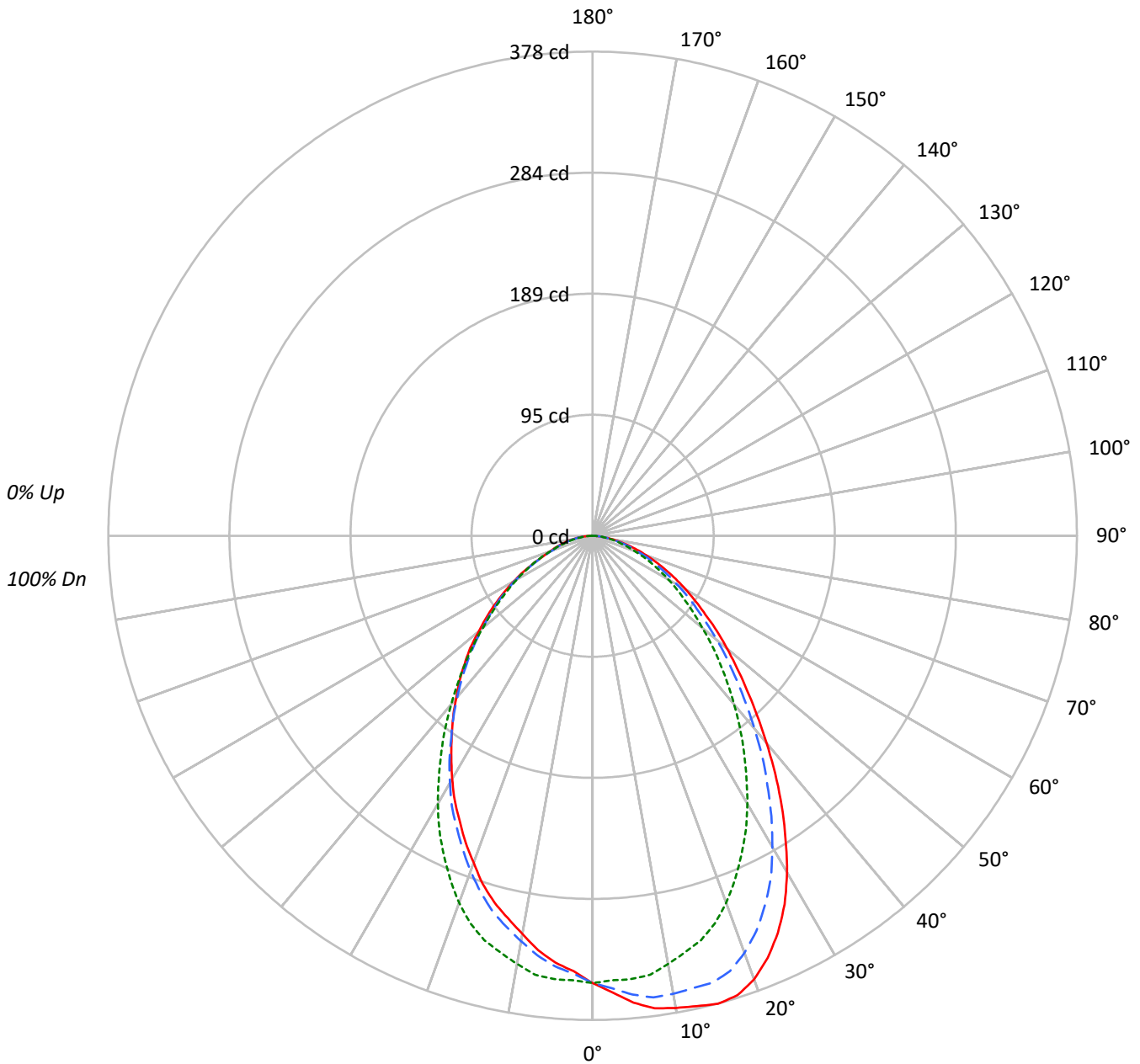
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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								
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	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	43072	43072	43072
5°	45292	43014	41404
10°	46880	42509	39528
15°	48308	41731	37837
20°	48370	40022	35651
25°	46559	37399	33425
30°	43227	34410	31220
35°	38744	30989	28881
40°	33991	27646	26696
45°	29724	24474	24631
50°	26251	21415	22202
55°	23139	18989	19956
60°	20697	16800	17466
65°	18329	14768	14768
70°	16012	12622	12622
75°	13678	10675	11962
80°	10797	9518	10797
85°	6935	8208	10190



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.1	4.9
10°-20°	93.2	13.8
20°-30°	130.5	19.3
30°-40°	134.5	19.9
40°-50°	114.5	16.9
50°-60°	84.8	12.5
60°-70°	53.2	7.9
70°-80°	26.5	3.9
80°-90°	6.9	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°	256.8	37.9
0°-40°	391.3	57.8
0°-60°	590.6	87.2
0°-90°	677.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	677.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	349	349	349	349	349	
5°	366	360	347	338	334	35
15°	378	361	327	303	296	106
25°	342	318	275	251	246	156
35°	257	238	206	192	192	160
45°	170	159	140	138	141	132
55°	108	99	88	90	93	97
65°	63	56	51	50	51	63
75°	29	26	22	24	25	31
85°	5	5	6	7	7	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°	349.2	349.2	349.2	349.2	349.2	349.2	349.2	349.2	349.2
2.5°	356.8	355.5	353.7	350.6	347.4	344.7	342.1	340.7	340.3
5°	365.8	363.1	359.6	353.7	347.4	342.1	337.5	335.3	334.4
7.5°	372.1	369.3	363.5	354.6	345.6	337.5	330.4	327.2	326.3
10°	374.3	371.1	363.1	351.1	339.4	329.5	321.4	317.3	315.6
12.5°	376.1	372.1	361.7	347.4	333.1	321.0	312.5	307.0	305.8
15°	378.3	373.9	361.3	343.8	326.8	312.5	303.0	298.1	296.3
17.5°	376.1	371.1	356.4	336.6	317.3	301.7	291.4	286.9	285.1
20°	368.5	363.1	346.5	325.4	304.9	288.7	278.4	273.9	271.6
22.5°	356.8	351.1	333.9	311.6	290.4	274.8	264.9	260.5	259.1
25°	342.1	336.2	318.3	295.4	274.8	259.6	251.1	247.0	245.6
27.5°	324.5	318.7	301.2	278.9	259.1	244.7	238.0	234.0	233.1
30°	303.5	297.7	280.6	260.0	241.6	228.1	222.8	219.6	219.2
32.5°	280.1	275.2	259.6	240.7	223.3	212.0	208.0	205.8	205.3
35°	257.3	252.0	238.0	221.0	205.8	195.9	192.3	191.8	191.8
37.5°	234.0	228.6	217.5	201.7	188.8	179.8	178.4	178.9	178.9
40°	211.1	206.2	196.4	183.3	171.7	164.9	164.5	165.4	165.8
42.5°	189.7	185.6	176.6	165.4	155.6	150.2	150.6	152.4	153.8
45°	170.4	166.7	158.7	148.8	140.3	136.3	137.7	139.8	141.2
47.5°	152.9	149.7	142.1	133.1	126.0	123.3	125.1	127.8	129.5
50°	136.8	134.0	126.9	117.5	111.6	109.9	112.0	114.7	115.7
52.5°	122.4	119.7	112.0	104.0	99.5	98.6	100.9	103.1	104.4
55°	107.6	105.3	99.1	91.9	88.3	87.8	90.1	91.9	92.8
57.5°	95.5	93.3	87.4	81.2	78.0	77.5	79.8	81.2	81.6
60°	83.9	81.6	76.2	70.4	68.1	68.1	69.5	70.4	70.8
62.5°	73.1	70.8	65.9	60.9	59.1	59.1	59.1	59.6	60.9
65°	62.8	60.9	56.5	52.0	50.6	49.7	49.7	49.7	50.6
67.5°	53.3	51.5	48.0	43.9	42.6	41.2	40.7	41.7	41.7
70°	44.4	43.0	39.5	36.3	35.0	33.6	33.1	35.0	35.0
72.5°	36.3	35.0	32.7	29.6	28.3	27.8	28.7	29.6	30.1
75°	28.7	27.4	25.5	23.7	22.4	22.8	24.2	24.6	25.1
77.5°	21.6	21.1	19.3	17.9	17.9	18.4	19.3	20.2	20.7
80°	15.2	14.8	13.8	13.1	13.4	14.3	14.8	15.7	15.2
82.5°	9.4	9.4	9.0	9.0	9.4	10.3	10.8	11.2	11.7
85°	4.9	4.9	4.9	5.3	5.8	6.2	6.7	7.2	7.2
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)