

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: P581530

Luminaire Tested: **HC407D010-HM40525935-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581530
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC407D010-HM40525935-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 642.6 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

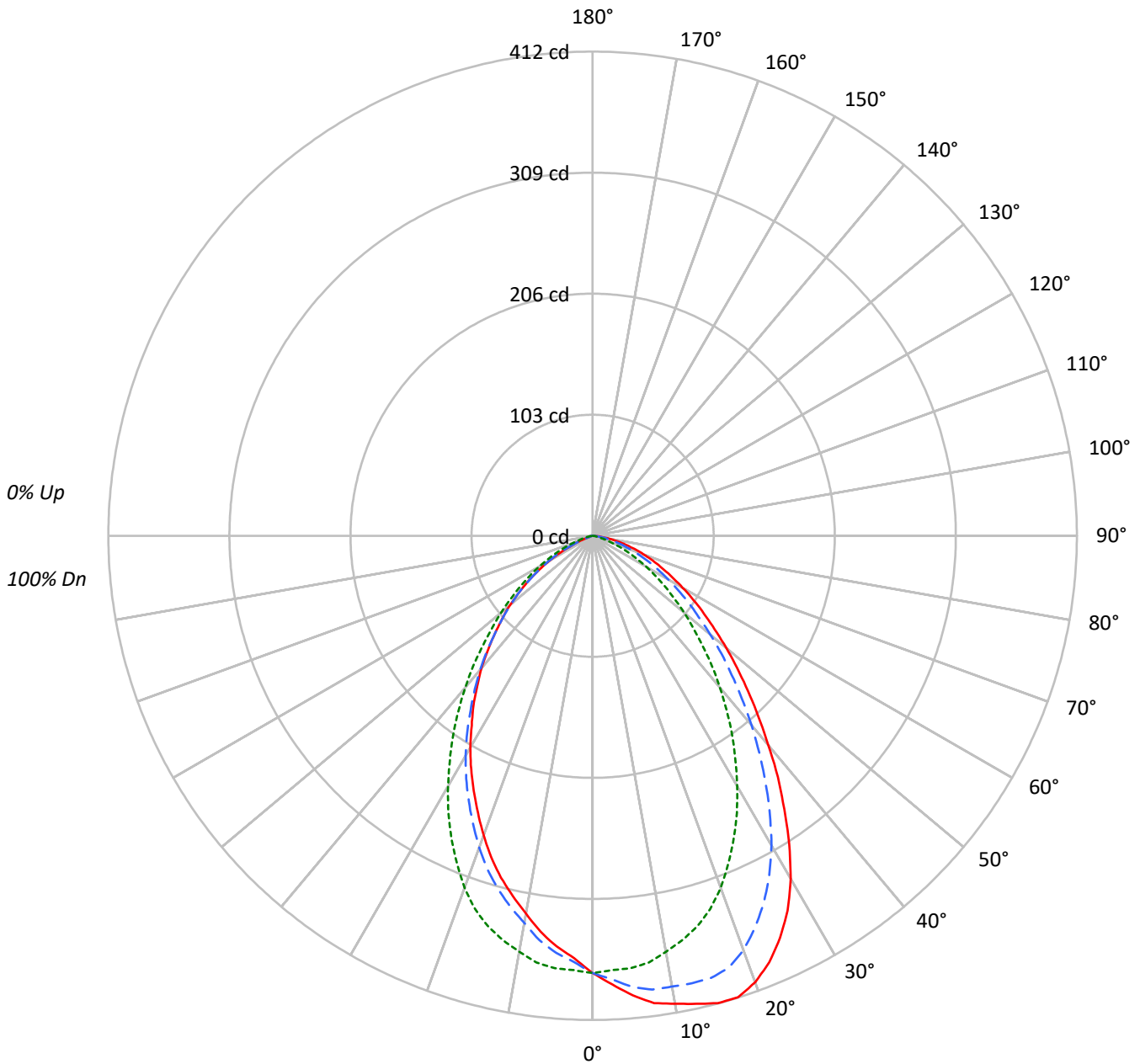
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89			89
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78			78
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69			69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61			61
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55			55
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49			49
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44			44
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40			40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37			37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34			34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	45885	45885	45885
5°	48623	45738	43435
10°	50638	45014	40894
15°	52573	43928	38450
20°	53069	41820	35572
25°	51363	38679	32554
30°	48012	35037	29625
35°	42794	31154	26607
40°	37420	27099	23685
45°	32602	22991	20479
50°	28438	19496	17577
55°	24902	16150	14215
60°	21808	13050	10435
65°	19000	9719	5866
70°	16625	6275	1911
75°	13630	3241	477
80°	10158	1563	426
85°	5944	849	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.1	5.5
10°-20°	98.3	15.3
20°-30°	135.9	21.1
30°-40°	136.6	21.3
40°-50°	110.2	17.2
50°-60°	74.5	11.6
60°-70°	37.9	5.9
70°-80°	12.2	1.9
80°-90°	1.9	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°	269.3	41.9
0°-40°	405.9	63.2
0°-60°	590.7	91.9
0°-90°	642.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	642.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	372	372	372	372	372	
5°	393	385	369	356	351	38
15°	412	390	344	311	301	116
25°	377	344	284	249	239	173
35°	284	257	207	181	177	178
45°	187	167	132	117	117	145
55°	116	100	75	66	66	104
65°	65	53	33	22	20	65
75°	29	20	7	2	1	31
85°	4	2	1	1	1	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°	372.0	372.0	372.0	372.0	372.0	372.0	372.0	372.0	372.0
2.5°	382.1	380.0	377.8	374.2	370.0	365.6	363.0	361.0	359.8
5°	392.7	390.0	385.3	377.4	369.4	362.0	356.2	352.4	350.8
7.5°	401.1	397.4	389.5	378.4	366.2	354.6	347.2	341.9	339.8
10°	404.3	400.1	389.5	374.7	359.4	345.0	334.5	329.2	326.5
12.5°	408.0	403.3	390.0	371.6	352.4	335.5	323.3	316.5	313.9
15°	411.7	405.4	389.5	366.8	344.0	324.4	311.1	304.3	301.1
17.5°	411.7	404.3	385.3	358.8	332.9	312.3	297.5	289.5	286.9
20°	404.3	395.9	375.2	346.1	318.6	296.3	282.1	274.1	271.0
22.5°	392.7	383.2	361.0	330.8	301.7	279.9	265.7	258.2	255.1
25°	377.4	367.8	344.5	313.3	284.2	262.5	249.2	242.4	239.2
27.5°	359.4	348.8	325.5	294.3	265.7	245.0	232.8	226.5	223.8
30°	337.1	327.1	304.3	273.6	246.0	227.0	215.9	210.1	208.0
32.5°	311.1	302.7	280.5	252.0	226.0	208.5	198.5	193.7	191.5
35°	284.2	276.3	256.6	230.2	206.9	190.5	180.9	177.9	176.7
37.5°	258.8	252.0	232.8	208.5	187.3	173.1	164.6	162.5	161.4
40°	232.4	227.6	210.1	187.9	168.3	155.6	148.7	147.1	147.1
42.5°	208.5	203.2	187.9	167.7	150.3	137.6	132.8	131.2	131.8
45°	186.9	181.5	167.3	148.7	131.8	121.2	117.4	117.4	117.4
47.5°	166.7	161.9	148.7	129.6	115.8	107.4	103.7	103.7	104.2
50°	148.2	145.0	130.2	113.8	101.6	93.7	91.0	90.5	91.6
52.5°	130.8	127.0	113.8	99.0	87.3	81.0	78.3	77.8	78.3
55°	115.8	111.6	100.0	85.7	75.1	68.8	65.7	65.1	66.1
57.5°	101.6	98.4	86.3	73.5	63.5	57.1	54.5	53.5	53.9
60°	88.4	85.2	74.1	61.9	52.9	46.5	42.9	41.8	42.3
62.5°	76.2	73.5	62.9	51.3	42.3	36.5	32.8	30.2	31.2
65°	65.1	62.5	52.9	41.3	33.3	27.0	21.7	19.6	20.1
67.5°	55.5	52.3	43.4	32.8	24.9	18.0	12.2	11.2	11.2
70°	46.1	42.9	34.9	25.4	17.4	9.6	5.3	5.3	5.3
72.5°	37.1	34.4	27.0	19.0	11.2	4.2	2.2	2.2	2.2
75°	28.6	26.5	20.1	13.2	6.8	2.2	1.6	1.0	1.0
77.5°	21.2	19.0	14.3	9.0	4.2	1.0	1.0	1.0	1.0
80°	14.3	12.7	9.6	5.3	2.2	0.6	0.6	0.6	0.6
82.5°	8.4	7.4	5.3	2.6	1.0	0.6	0.6	0.6	0.6
85°	4.2	3.2	2.2	1.0	0.6	0.6	0.6	0.6	0.6
87.5°	1.0	0.6	0.6	0.6	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)