

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: P581496

Luminaire Tested: **HC407D010-HM40525927-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581496
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: HC407D010-HM40525927-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 682.5 lumens
Efficiency: N/A
Efficacy: 85.3 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

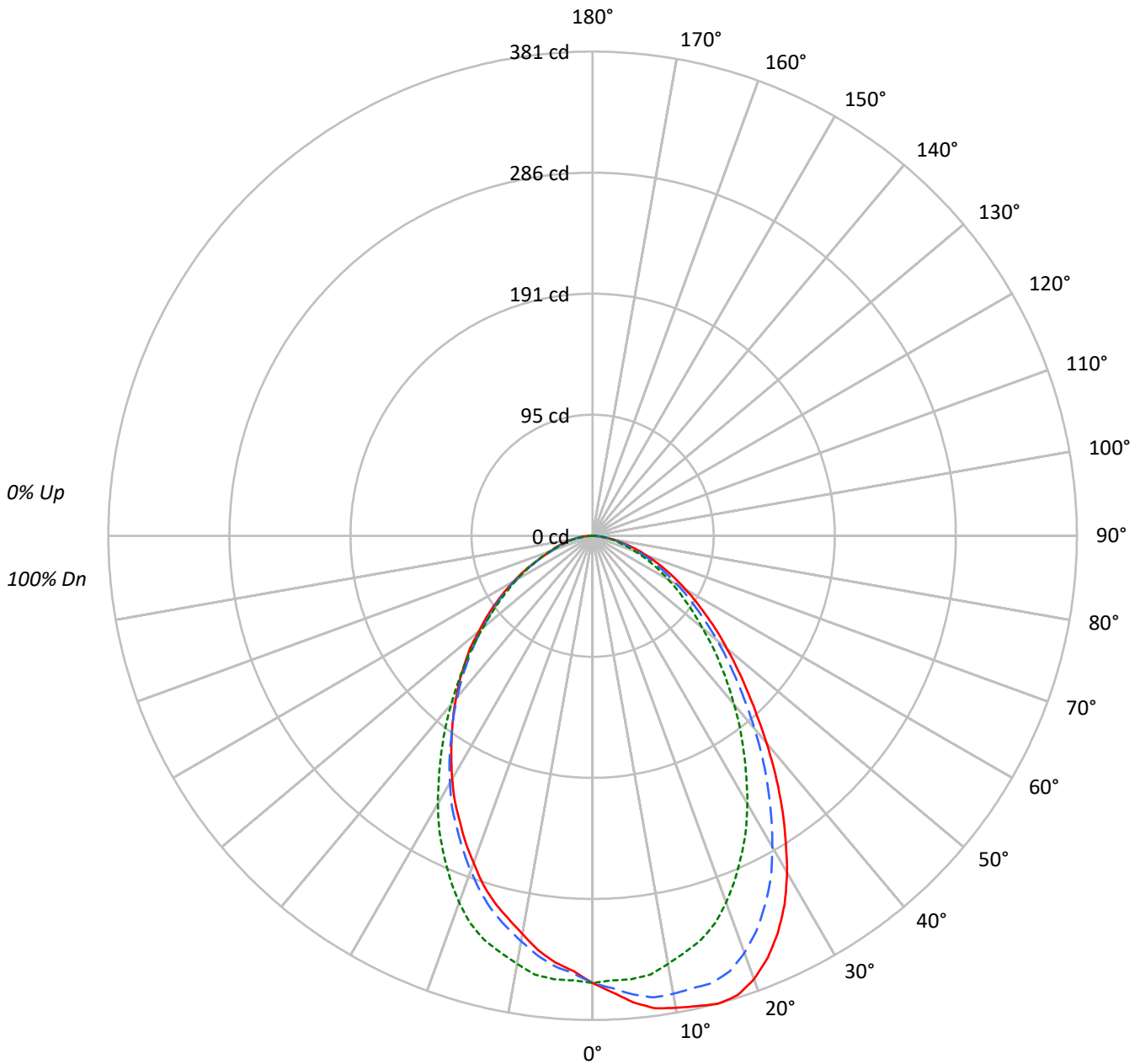
Input Watts (W): 8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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								
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°	43405	43405	43405
5°	45639	43361	41726
10°	47244	42835	39842
15°	48691	42051	38130
20°	48737	40310	35939
25°	46913	37699	33684
30°	43568	34681	31462
35°	39060	31215	29107
40°	34264	27856	26922
45°	29951	24683	24805
50°	26443	21569	22355
55°	23333	19139	20107
60°	20821	16923	17614
65°	18475	14914	14914
70°	16121	12731	12731
75°	13773	10723	12057
80°	10939	9589	10939
85°	7076	8350	10331



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.3	4.9
10°-20°	93.9	13.8
20°-30°	131.6	19.3
30°-40°	135.5	19.9
40°-50°	115.4	16.9
50°-60°	85.5	12.5
60°-70°	53.7	7.9
70°-80°	26.7	3.9
80°-90°	7.0	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°	258.8	37.9
0°-40°	394.3	57.8
0°-60°	595.2	87.2
0°-90°	682.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	682.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	352	352	352	352	352	
5°	369	362	350	340	337	35
15°	381	364	329	305	299	107
25°	345	321	277	253	248	158
35°	259	240	207	194	193	162
45°	172	160	142	139	142	133
55°	108	100	89	91	94	98
65°	63	57	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°	351.9	351.9	351.9	351.9	351.9	351.9	351.9	351.9	351.9
2.5°	359.6	358.2	356.4	353.2	350.2	347.4	344.7	343.3	342.9
5°	368.6	366.0	362.3	356.4	350.2	344.7	340.1	337.9	337.0
7.5°	375.0	372.2	366.4	357.3	348.3	340.1	333.0	329.8	328.9
10°	377.2	374.1	366.0	353.7	342.0	332.1	323.9	319.9	318.1
12.5°	379.1	375.0	364.6	350.2	335.7	323.4	314.9	309.4	308.1
15°	381.3	376.8	364.2	346.5	329.3	314.9	305.4	300.4	298.6
17.5°	379.1	374.1	359.2	339.2	319.9	304.1	293.6	289.2	287.3
20°	371.3	366.0	349.3	328.0	307.1	291.0	280.5	276.1	273.8
22.5°	359.6	353.7	336.6	314.0	292.7	277.0	267.0	262.4	261.2
25°	344.7	338.8	320.8	297.7	277.0	261.6	253.0	248.9	247.5
27.5°	327.1	321.3	303.6	281.0	261.2	246.7	239.9	235.8	234.9
30°	305.9	300.0	282.8	262.0	243.5	230.0	224.5	221.3	220.9
32.5°	282.3	277.3	261.6	242.6	225.0	213.7	209.6	207.3	206.9
35°	259.4	253.9	239.9	222.7	207.3	197.4	193.8	193.3	193.3
37.5°	235.8	230.4	219.1	203.2	190.2	181.2	179.8	180.3	180.3
40°	212.8	207.8	197.9	184.8	173.0	166.3	165.8	166.7	167.2
42.5°	191.1	187.1	178.0	166.7	156.8	151.4	151.8	153.6	155.0
45°	171.7	168.1	159.9	150.0	141.5	137.4	138.7	141.0	142.2
47.5°	154.1	150.9	143.2	134.2	127.0	124.3	126.1	128.7	130.5
50°	137.8	135.1	127.8	118.4	112.4	110.7	112.9	115.6	116.5
52.5°	123.4	120.6	112.9	104.8	100.3	99.3	101.6	103.9	105.3
55°	108.5	106.2	99.8	92.6	89.0	88.5	90.8	92.6	93.5
57.5°	96.3	94.0	88.1	81.8	78.6	78.2	80.5	81.8	82.3
60°	84.4	82.3	76.8	70.9	68.6	68.6	70.0	70.9	71.4
62.5°	73.6	71.4	66.5	61.5	59.6	59.6	59.6	60.1	61.5
65°	63.3	61.5	56.9	52.3	51.1	50.2	50.2	50.2	51.1
67.5°	53.7	52.0	48.4	44.3	42.9	41.5	41.1	42.0	42.0
70°	44.7	43.4	39.7	36.6	35.3	33.9	33.5	35.3	35.3
72.5°	36.6	35.3	33.0	29.8	28.4	28.0	28.9	29.8	30.3
75°	28.9	27.5	25.7	23.9	22.5	23.0	24.4	24.8	25.3
77.5°	21.7	21.3	19.5	18.1	18.1	18.5	19.5	20.4	20.8
80°	15.4	14.9	14.0	13.1	13.5	14.5	14.9	15.8	15.4
82.5°	9.4	9.4	9.0	9.0	9.4	10.4	10.8	11.3	11.7
85°	5.0	5.0	5.0	5.5	5.9	6.4	6.8	7.3	7.3
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)