

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: P581531

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581531
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: HC407D010-HM40525935-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 803.6 lumens
Efficiency: N/A
Efficacy: 100.4 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

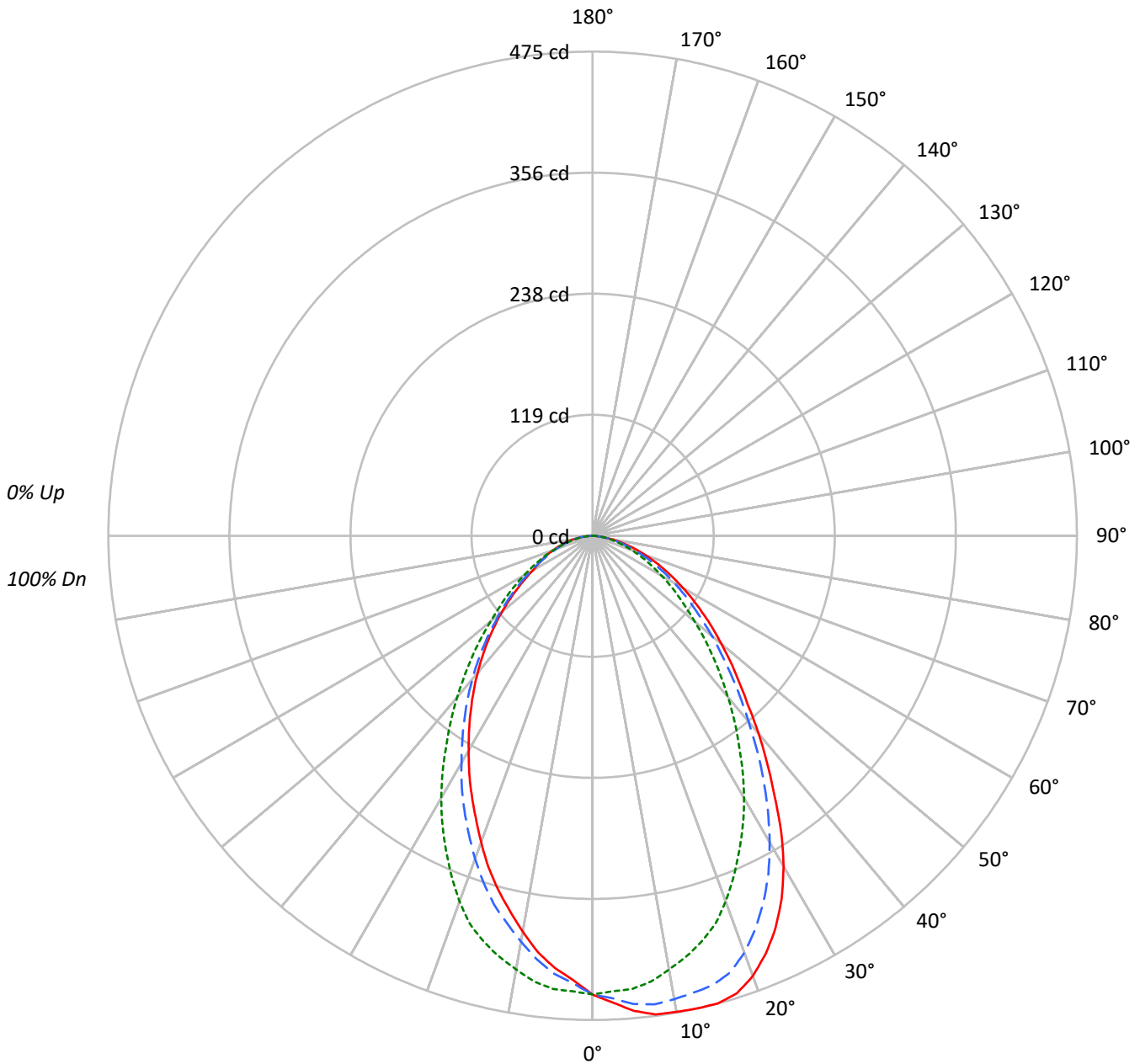
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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				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°	55506	55506	55506
5°	57934	55247	52696
10°	59405	54107	49398
15°	60643	52662	45830
20°	60315	50103	41977
25°	57787	46327	38175
30°	53367	42301	34610
35°	46799	37629	31320
40°	40753	33234	28226
45°	35446	29009	25206
50°	31605	24984	22259
55°	28236	21978	19225
60°	25212	19193	16602
65°	22415	16840	15731
70°	19655	14534	14678
75°	16632	12343	13630
80°	12786	10513	12431
85°	7501	8208	10473



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.2	5.2
10°-20°	116.3	14.5
20°-30°	159.0	19.8
30°-40°	159.6	19.9
40°-50°	132.0	16.4
50°-60°	95.7	11.9
60°-70°	60.6	7.5
70°-80°	30.6	3.8
80°-90°	7.5	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°	317.5	39.5
0°-40°	477.1	59.4
0°-60°	704.8	87.7
0°-90°	803.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	803.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	450	450	450	450	450	
5°	468	461	446	431	426	45
15°	475	456	412	374	359	134
25°	425	396	340	298	280	194
35°	311	292	250	219	208	195
45°	203	192	166	150	144	158
55°	131	120	102	93	89	118
65°	77	68	58	52	54	76
75°	35	30	26	27	29	37
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°	450.0	450.0	450.0	450.0	450.0	450.0	450.0	450.0	450.0
2.5°	458.4	456.9	454.2	451.0	447.3	443.1	439.4	437.2	436.2
5°	467.9	465.9	461.1	454.2	446.2	438.4	431.4	427.2	425.6
7.5°	473.7	470.6	463.7	453.2	441.0	429.4	419.2	413.4	411.8
10°	474.3	470.6	461.6	447.3	432.0	416.6	404.4	396.0	394.4
12.5°	474.9	470.1	459.0	442.0	423.0	403.9	389.1	379.1	376.3
15°	474.9	470.1	456.3	436.2	412.4	390.7	374.3	362.7	358.9
17.5°	470.6	465.3	448.9	425.6	399.7	375.3	356.3	344.1	340.4
20°	459.5	453.7	435.2	409.8	381.7	356.3	337.2	324.6	319.8
22.5°	443.6	436.8	417.2	389.7	361.5	335.6	317.0	303.8	299.6
25°	424.6	417.6	396.5	369.5	340.4	316.0	297.5	285.3	280.5
27.5°	401.3	393.9	373.3	346.2	319.2	294.9	277.9	266.9	262.1
30°	374.7	366.9	347.3	321.4	297.0	273.7	257.3	248.3	243.0
32.5°	344.1	337.2	319.8	296.4	273.7	251.5	237.7	229.8	225.6
35°	310.8	307.0	292.2	272.1	249.9	231.4	219.2	211.8	208.0
37.5°	281.1	277.4	264.7	247.7	228.2	211.2	201.2	194.8	191.6
40°	253.1	249.9	237.7	223.4	206.4	191.6	183.2	178.4	175.3
42.5°	225.6	224.0	213.8	200.6	185.8	173.1	166.3	162.5	159.9
45°	203.2	201.2	191.6	178.9	166.3	155.7	149.8	147.1	144.5
47.5°	183.7	181.1	171.0	159.9	148.3	138.7	133.4	130.8	129.7
50°	164.7	161.9	152.9	141.9	130.2	123.4	119.1	116.4	116.0
52.5°	147.7	145.1	135.0	124.4	115.4	109.6	105.8	103.2	102.2
55°	131.3	128.1	119.6	109.6	102.2	96.8	93.2	90.5	89.4
57.5°	116.4	113.2	105.8	96.4	89.4	84.7	81.5	78.9	77.8
60°	102.2	99.6	92.6	83.6	77.8	73.6	70.4	68.3	67.3
62.5°	89.0	86.8	79.9	72.0	67.3	63.5	60.9	58.7	59.9
65°	76.8	74.7	68.3	61.5	57.7	53.9	51.9	51.9	53.9
67.5°	65.1	63.0	57.7	51.9	48.7	46.1	44.5	46.1	47.7
70°	54.5	52.5	47.7	42.9	40.3	38.1	38.1	39.7	40.7
72.5°	44.5	42.3	38.7	34.9	32.8	31.2	32.8	33.9	34.9
75°	34.9	33.3	30.2	27.5	25.9	25.4	27.0	28.1	28.6
77.5°	25.9	24.9	22.8	20.6	19.6	20.1	21.7	22.2	22.8
80°	18.0	17.5	15.9	14.8	14.8	15.4	16.4	17.0	17.5
82.5°	11.2	11.2	10.0	9.6	10.0	11.2	11.6	12.2	12.2
85°	5.3	5.8	5.3	5.3	5.8	6.8	6.8	7.4	7.4
87.5°	1.6	1.6	2.2	2.2	2.6	2.6	2.6	2.6	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)