

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: P581423

Luminaire Tested: **HC407D010-HM40525827-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581423
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-HM40525827-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 801.4 lumens
Efficiency: N/A
Efficacy: 100.2 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

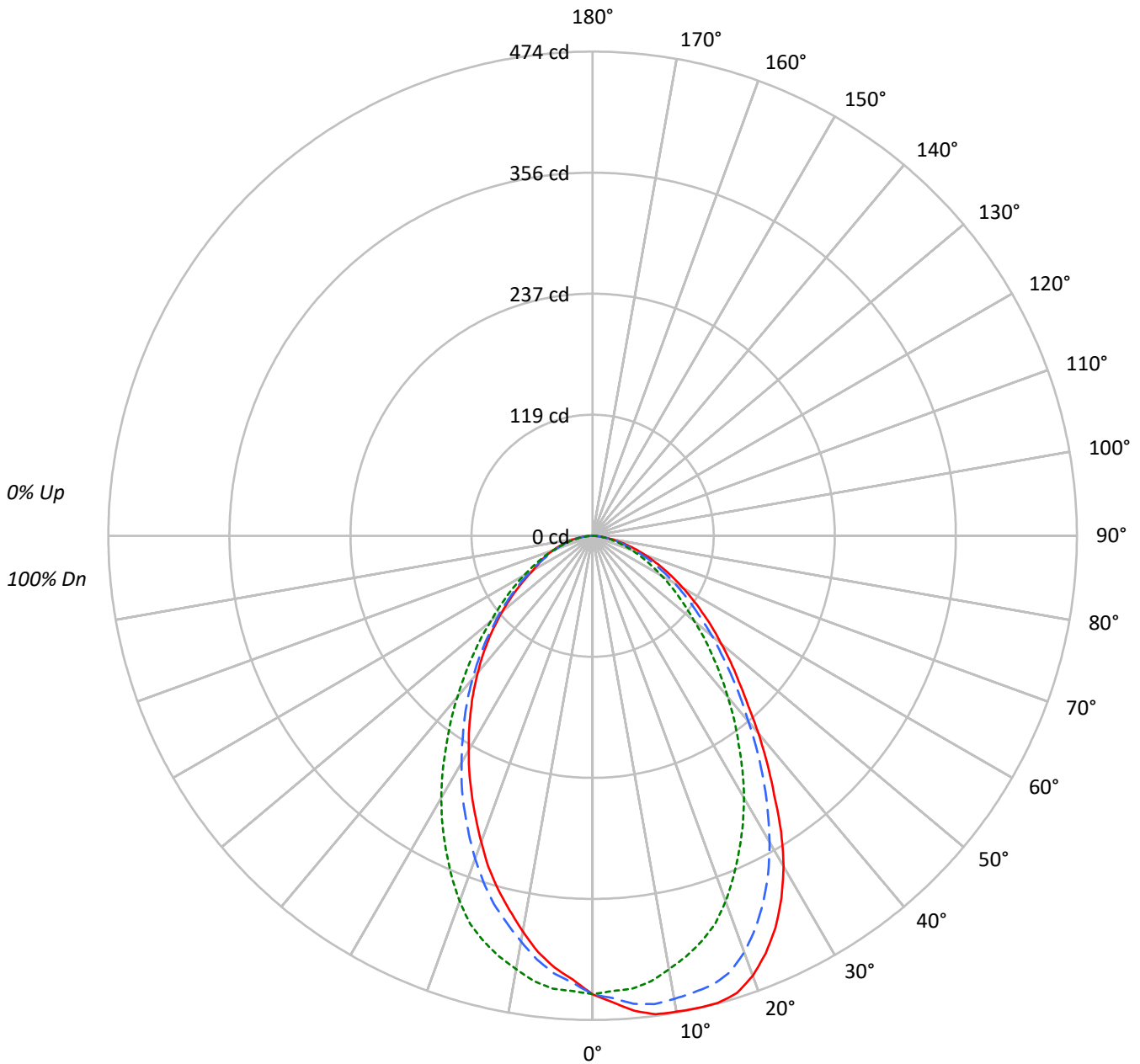
Input Watts (W): 8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47																			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	55358	55358	55358
5°	57785	55111	52560
10°	59255	53957	49260
15°	60477	52522	45715
20°	60157	49971	41859
25°	57623	46205	38080
30°	53239	42187	34524
35°	46664	37524	31245
40°	40641	33153	28146
45°	35376	28922	25154
50°	31509	24908	22183
55°	28171	21913	19182
60°	25138	19143	16528
65°	22357	16811	15702
70°	19619	14498	14642
75°	16585	12296	13630
80°	12786	10513	12360
85°	7359	8208	10473



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.1	5.2
10°-20°	116.0	14.5
20°-30°	158.5	19.8
30°-40°	159.2	19.9
40°-50°	131.7	16.4
50°-60°	95.4	11.9
60°-70°	60.5	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°	316.6	39.5
0°-40°	475.8	59.4
0°-60°	702.9	87.7
0°-90°	801.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	801.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	449	449	449	449	449	
5°	467	460	445	430	424	45
15°	474	455	411	373	358	133
25°	423	396	340	297	280	194
35°	310	291	249	219	208	194
45°	203	191	166	149	144	158
55°	131	119	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°	448.8	448.8	448.8	448.8	448.8	448.8	448.8	448.8	448.8
2.5°	457.2	455.7	453.0	449.9	446.1	441.9	438.2	436.1	435.1
5°	466.7	464.6	459.9	453.0	445.1	437.2	430.3	426.1	424.5
7.5°	472.5	469.4	462.5	451.9	439.8	428.2	418.2	412.4	410.8
10°	473.1	469.4	460.4	446.1	430.8	415.5	403.4	394.9	393.3
12.5°	473.6	468.9	457.8	440.9	421.9	402.9	388.1	378.0	375.4
15°	473.6	468.9	455.1	435.1	411.3	389.7	373.3	361.7	358.0
17.5°	469.4	464.1	447.7	424.5	398.6	374.3	355.3	343.2	339.5
20°	458.3	452.5	434.0	408.7	380.7	355.3	336.3	323.6	318.9
22.5°	442.5	435.6	416.1	388.6	360.6	334.7	316.3	303.0	298.8
25°	423.4	416.6	395.5	368.5	339.5	315.2	296.7	284.6	279.8
27.5°	400.2	392.8	372.2	345.3	318.4	294.1	277.2	266.1	261.4
30°	373.8	365.9	346.4	320.5	296.2	273.0	256.6	247.6	242.4
32.5°	343.2	336.3	318.9	295.7	273.0	250.8	237.0	229.2	224.9
35°	309.9	306.2	291.4	271.4	249.2	230.7	218.6	211.2	207.5
37.5°	280.4	276.6	264.0	247.1	227.6	210.6	200.6	194.3	191.2
40°	252.4	249.2	237.0	222.8	205.9	191.2	182.6	178.0	174.8
42.5°	224.9	223.4	213.3	200.1	185.3	172.6	165.8	162.1	159.4
45°	202.8	200.6	191.2	178.4	165.8	155.2	149.4	146.8	144.2
47.5°	183.2	180.6	170.6	159.4	147.8	138.4	133.0	130.4	129.4
50°	164.2	161.6	152.6	141.5	129.8	123.0	118.8	116.2	115.6
52.5°	147.3	144.6	134.6	124.0	115.1	109.2	105.6	103.0	101.9
55°	131.0	127.8	119.4	109.2	101.9	96.6	93.0	90.2	89.2
57.5°	116.2	113.0	105.6	96.0	89.2	84.4	81.3	78.6	77.6
60°	101.9	99.2	92.4	83.4	77.6	73.4	70.2	68.2	67.0
62.5°	88.7	86.6	79.8	71.8	67.0	63.4	60.8	58.6	59.6
65°	76.6	74.4	68.2	61.2	57.6	53.8	51.8	51.8	53.8
67.5°	65.0	62.8	57.6	51.8	48.6	46.0	44.4	46.0	47.6
70°	54.4	52.2	47.6	42.8	40.2	38.0	38.0	39.6	40.6
72.5°	44.4	42.2	38.6	34.8	32.8	31.2	32.8	33.8	34.8
75°	34.8	33.2	30.0	27.4	25.8	25.4	27.0	28.0	28.6
77.5°	25.8	24.8	22.8	20.6	19.6	20.0	21.6	22.2	22.8
80°	18.0	17.4	15.8	14.8	14.8	15.4	16.4	16.8	17.4
82.5°	11.0	11.0	10.0	9.6	10.0	11.0	11.6	12.2	12.2
85°	5.2	5.8	5.2	5.2	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)