

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: P581478

Luminaire Tested: **HC407D010-HM40525840-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581478
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-HM40525840-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 920.3 lumens
Efficiency: N/A
Efficacy: 115.0 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

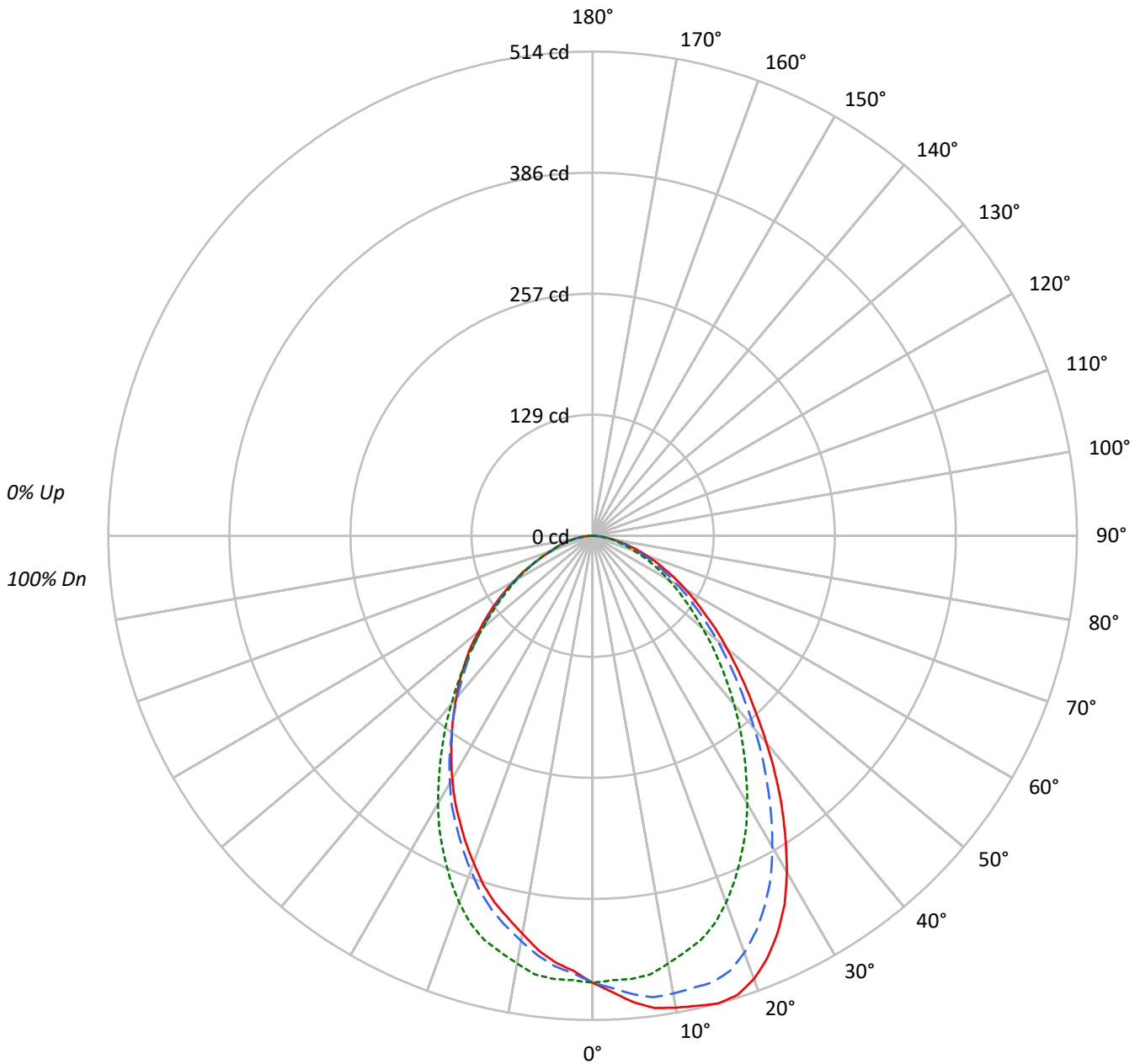
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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																			
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°	58528	58528	58528
5°	61549	58466	56275
10°	63714	57752	53719
15°	65649	56723	51423
20°	65723	54369	48462
25°	63271	50832	45443
30°	58737	46759	42429
35°	52657	42101	39255
40°	46196	37565	36293
45°	40382	33265	33474
50°	35653	29110	30165
55°	31440	25827	27117
60°	28098	22844	23756
65°	24867	20080	20080
70°	21747	17166	17166
75°	18586	14535	16251
80°	14704	12999	14704
85°	9482	11322	13869



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.0	4.9
10°-20°	126.6	13.8
20°-30°	177.4	19.3
30°-40°	182.8	19.9
40°-50°	155.6	16.9
50°-60°	115.3	12.5
60°-70°	72.4	7.9
70°-80°	36.0	3.9
80°-90°	9.4	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°	349.0	37.9
0°-40°	531.7	57.8
0°-60°	802.6	87.2
0°-90°	920.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	920.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	474	474	474	474	474	
5°	497	488	472	459	454	48
15°	514	491	444	412	403	145
25°	465	433	374	341	334	213
35°	350	324	280	261	261	218
45°	232	216	191	187	192	180
55°	146	135	120	122	126	132
65°	85	77	69	68	69	85
75°	39	35	30	33	34	42
85°	7	7	8	9	10	9
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°	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5
2.5°	484.9	483.1	480.7	476.4	472.2	468.5	464.9	463.1	462.4
5°	497.1	493.4	488.5	480.7	472.2	464.9	458.7	455.7	454.5
7.5°	505.6	502.0	494.1	481.8	469.7	458.7	448.9	444.7	443.5
10°	508.7	504.5	493.4	477.0	461.1	447.8	436.8	431.3	428.9
12.5°	511.1	505.6	491.6	472.2	452.6	436.2	424.6	417.3	415.5
15°	514.1	508.1	491.0	467.3	444.2	424.6	411.8	405.1	402.7
17.5°	511.1	504.5	484.3	457.5	431.3	410.0	396.0	389.9	387.5
20°	500.7	493.4	470.9	442.2	414.2	392.4	378.3	372.2	369.2
22.5°	484.9	477.0	453.8	423.4	394.8	373.5	360.1	353.9	352.1
25°	464.9	456.9	432.6	401.5	373.5	352.8	341.2	335.7	333.9
27.5°	441.1	433.1	409.3	379.0	352.1	332.6	323.5	318.0	316.8
30°	412.4	404.6	381.3	353.3	328.3	310.1	302.8	298.5	297.9
32.5°	380.8	374.1	352.8	327.2	303.4	288.1	282.7	279.6	279.0
35°	349.7	342.4	323.5	300.3	279.6	266.2	261.4	260.7	260.7
37.5°	318.0	310.7	295.4	274.1	256.5	244.3	242.5	243.1	243.1
40°	286.9	280.3	266.9	249.1	233.3	224.2	223.6	224.8	225.4
42.5°	257.6	252.2	240.0	224.8	211.4	204.0	204.7	207.1	208.9
45°	231.5	226.6	215.7	202.2	190.7	185.2	187.0	190.0	191.9
47.5°	207.7	203.5	193.1	180.9	171.2	167.5	170.0	173.7	176.0
50°	185.8	182.2	172.4	159.7	151.7	149.3	152.3	155.9	157.2
52.5°	166.3	162.6	152.3	141.3	135.2	134.1	137.0	140.1	141.9
55°	146.2	143.2	134.6	124.8	120.1	119.4	122.4	124.8	126.1
57.5°	129.7	126.7	118.8	110.3	105.9	105.4	108.5	110.3	110.8
60°	113.9	110.8	103.6	95.6	92.6	92.6	94.5	95.6	96.3
62.5°	99.3	96.3	89.6	82.8	80.5	80.5	80.5	81.0	82.8
65°	85.2	82.8	76.8	70.7	68.8	67.6	67.6	67.6	68.8
67.5°	72.5	70.1	65.2	59.7	57.9	56.1	55.4	56.7	56.7
70°	60.3	58.5	53.6	49.4	47.6	45.6	45.1	47.6	47.6
72.5°	49.4	47.6	44.5	40.2	38.4	37.8	39.0	40.2	40.9
75°	39.0	37.2	34.7	32.3	30.5	31.1	32.9	33.5	34.1
77.5°	29.2	28.7	26.2	24.4	24.4	24.9	26.2	27.4	28.0
80°	20.7	20.1	18.9	17.6	18.3	19.5	20.1	21.3	20.7
82.5°	12.7	12.7	12.2	12.2	12.7	14.0	14.6	15.2	15.8
85°	6.7	6.7	6.7	7.3	8.0	8.5	9.1	9.8	9.8
87.5°	1.8	2.4	2.4	3.1	3.6	3.6	4.2	4.2	4.2
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)