

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: P581550

Luminaire Tested: **HC407D010-HM40525950-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581550
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-HM40525950-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 828.8 lumens
Efficiency: N/A
Efficacy: 103.6 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

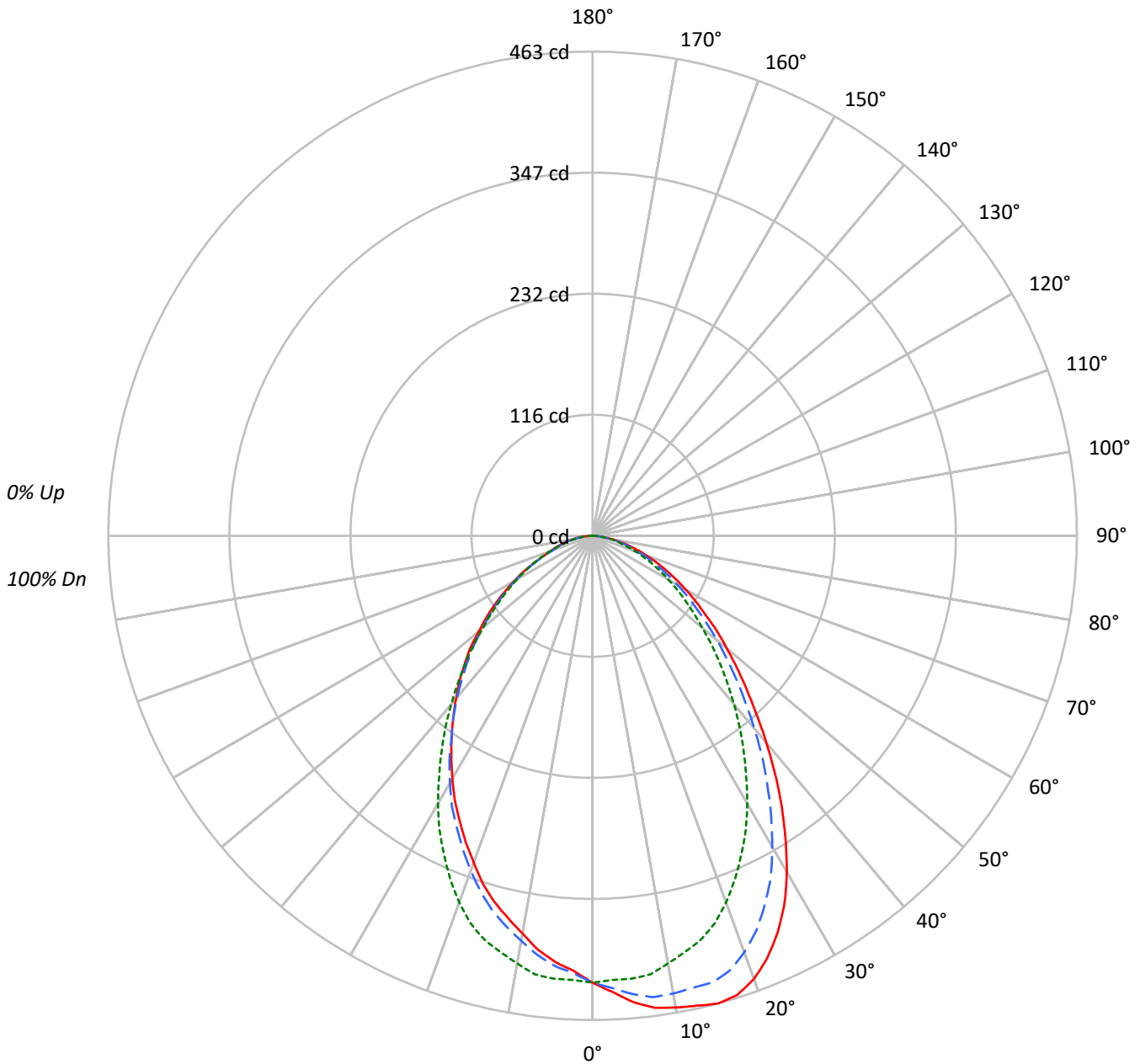
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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°	52706	52706	52706
5°	55433	52647	50666
10°	57364	52016	48371
15°	59136	51066	46303
20°	59199	48961	43631
25°	56970	45769	40924
30°	52897	42116	38199
35°	47417	37915	35356
40°	41607	33830	32686
45°	36370	29951	30160
50°	32103	26212	27172
55°	28322	23247	24429
60°	25286	20574	21388
65°	22415	18095	18095
70°	19583	15435	15435
75°	16775	13058	14631
80°	13283	11720	13283
85°	8491	10190	12454



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.5	4.9
10°-20°	114.0	13.8
20°-30°	159.7	19.3
30°-40°	164.6	19.9
40°-50°	140.1	16.9
50°-60°	103.8	12.5
60°-70°	65.2	7.9
70°-80°	32.4	3.9
80°-90°	8.5	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°	314.3	37.9
0°-40°	478.8	57.8
0°-60°	722.8	87.2
0°-90°	828.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	828.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	427	427	427	427	427	
5°	448	440	425	413	409	43
15°	463	442	400	371	363	130
25°	419	390	336	307	301	191
35°	315	291	252	235	235	196
45°	208	194	172	168	173	162
55°	132	121	108	110	114	119
65°	77	69	62	61	62	77
75°	35	31	27	30	31	38
85°	6	6	7	8	9	8
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°	427.3	427.3	427.3	427.3	427.3	427.3	427.3	427.3	427.3
2.5°	436.7	435.1	432.9	429.0	425.2	421.9	418.6	417.0	416.4
5°	447.7	444.4	440.0	432.9	425.2	418.6	413.1	410.4	409.2
7.5°	455.3	452.0	445.0	433.9	423.0	413.1	404.3	400.5	399.3
10°	458.0	454.3	444.4	429.6	415.3	403.2	393.3	388.4	386.2
12.5°	460.3	455.3	442.7	425.2	407.6	392.8	382.4	375.8	374.2
15°	463.1	457.5	442.2	420.7	399.9	382.4	370.9	364.8	362.6
17.5°	460.3	454.3	436.1	412.0	388.4	369.2	356.5	351.1	348.9
20°	451.0	444.4	424.0	398.3	373.0	353.3	340.7	335.1	332.4
22.5°	436.7	429.6	408.7	381.2	355.5	336.3	324.2	318.8	317.0
25°	418.6	411.5	389.5	361.5	336.3	317.6	307.3	302.3	300.7
27.5°	397.2	390.1	368.7	341.2	317.0	299.5	291.3	286.3	285.3
30°	371.4	364.3	343.4	318.2	295.7	279.3	272.7	268.8	268.2
32.5°	342.9	336.8	317.6	294.6	273.2	259.5	254.6	251.8	251.3
35°	314.9	308.3	291.3	270.5	251.8	239.8	235.3	234.8	234.8
37.5°	286.3	279.8	266.1	246.8	231.0	220.0	218.4	218.8	218.8
40°	258.4	252.4	240.2	224.4	210.1	201.9	201.3	202.5	203.0
42.5°	232.0	227.1	216.1	202.5	190.4	183.8	184.4	186.5	188.2
45°	208.5	204.0	194.3	182.1	171.7	166.7	168.4	171.2	172.9
47.5°	187.1	183.2	173.9	163.0	154.2	150.9	153.1	156.4	158.5
50°	167.3	164.0	155.2	143.7	136.6	134.4	137.1	140.4	141.6
52.5°	149.8	146.5	137.1	127.2	121.8	120.7	123.5	126.2	127.8
55°	131.7	128.9	121.2	112.4	108.1	107.5	110.3	112.4	113.6
57.5°	116.9	114.1	107.0	99.3	95.5	94.9	97.6	99.3	99.8
60°	102.5	99.8	93.3	86.1	83.4	83.4	85.0	86.1	86.7
62.5°	89.4	86.7	80.7	74.7	72.4	72.4	72.4	72.9	74.7
65°	76.8	74.7	69.1	63.6	62.0	60.9	60.9	60.9	62.0
67.5°	65.3	63.0	58.7	53.7	52.1	50.5	50.0	51.0	51.0
70°	54.3	52.7	48.3	44.4	42.8	41.2	40.6	42.8	42.8
72.5°	44.4	42.8	40.1	36.2	34.6	34.0	35.2	36.2	36.8
75°	35.2	33.5	31.3	29.0	27.4	28.0	29.6	30.2	30.7
77.5°	26.3	25.8	23.6	22.0	22.0	22.5	23.6	24.7	25.3
80°	18.7	18.1	17.0	15.9	16.5	17.5	18.1	19.2	18.7
82.5°	11.5	11.5	10.9	10.9	11.5	12.6	13.2	13.8	14.2
85°	6.0	6.0	6.0	6.6	7.2	7.6	8.2	8.8	8.8
87.5°	1.6	2.2	2.2	2.7	3.3	3.3	3.9	3.9	3.9
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)