

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: P581026

Luminaire Tested: **HC405D010-HM40525835-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581026
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC405D010-HM40525835-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 544.1 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

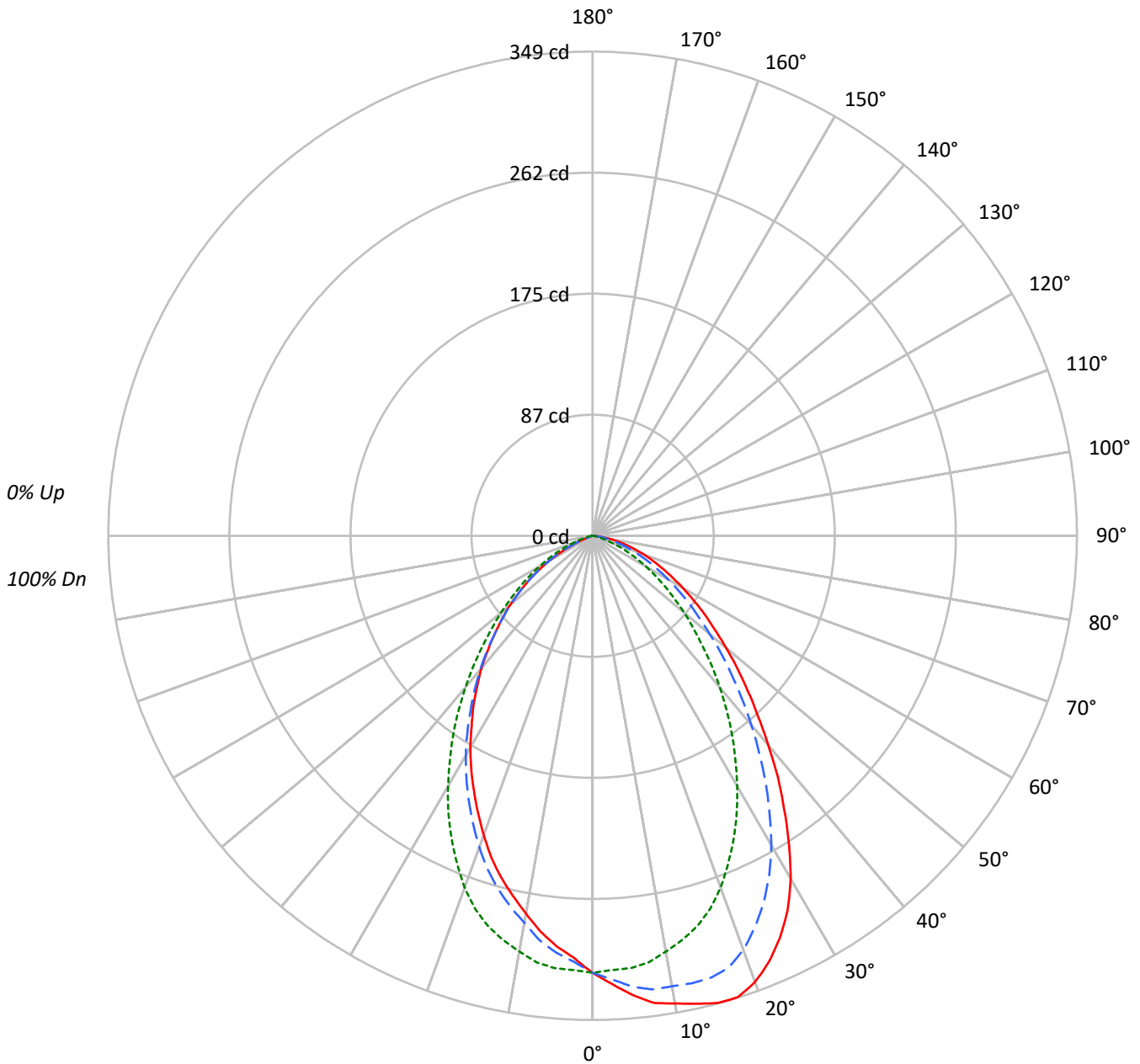
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				100				
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89				89				
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78				78				
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69				69				
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61				61				
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55				55				
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49				49				
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44				44				
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40				40				
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37				37				
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34				34				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	38854	38854	38854
5°	41157	38730	36774
10°	42873	38113	34631
15°	44528	37185	32550
20°	44931	35414	30111
25°	43483	32745	27560
30°	40663	29682	25096
35°	36229	26381	22541
40°	31672	22929	20063
45°	27596	19467	17339
50°	24063	16503	14872
55°	21118	13698	12043
60°	18453	11052	8856
65°	16111	8260	4962
70°	14029	5337	1587
75°	11533	2764	429
80°	8595	1279	355
85°	5095	708	708



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.7	5.5
10°-20°	83.2	15.3
20°-30°	115.0	21.1
30°-40°	115.7	21.3
40°-50°	93.3	17.2
50°-60°	63.1	11.6
60°-70°	32.1	5.9
70°-80°	10.3	1.9
80°-90°	1.6	0.3
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°	228.0	41.9
0°-40°	343.7	63.2
0°-60°	500.1	91.9
0°-90°	544.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	544.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	315	315	315	315	315	
5°	332	326	313	302	297	32
15°	349	330	291	263	255	98
25°	320	292	241	211	202	146
35°	241	217	175	153	150	150
45°	158	142	112	99	99	123
55°	98	85	64	56	56	88
65°	55	45	28	18	17	55
75°	24	17	6	1	1	26
85°	4	2	0	0	0	5
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°	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0
2.5°	323.5	321.8	320.0	316.8	313.3	309.6	307.4	305.5	304.7
5°	332.4	330.3	326.2	319.5	312.8	306.4	301.6	298.4	297.0
7.5°	339.7	336.5	329.8	320.4	310.1	300.2	294.0	289.4	287.7
10°	342.3	338.8	329.8	317.2	304.3	292.1	283.2	278.8	276.5
12.5°	345.5	341.4	330.3	314.5	298.4	284.1	273.8	268.0	265.7
15°	348.7	343.2	329.8	310.5	291.2	274.7	263.4	257.6	254.9
17.5°	348.7	342.3	326.2	303.8	281.8	264.3	251.9	245.2	242.9
20°	342.3	335.2	317.7	293.1	269.8	250.9	238.8	232.1	229.4
22.5°	332.4	324.4	305.5	280.0	255.4	237.0	225.0	218.7	216.0
25°	319.5	311.4	291.7	265.2	240.6	222.2	211.0	205.2	202.5
27.5°	304.3	295.3	275.6	249.1	225.0	207.5	197.1	191.8	189.5
30°	285.5	276.9	257.6	231.7	208.4	192.3	182.8	177.9	176.2
32.5°	263.4	256.3	237.4	213.3	191.4	176.5	168.0	164.0	162.2
35°	240.6	233.9	217.4	194.9	175.2	161.3	153.2	150.6	149.7
37.5°	219.2	213.3	197.1	176.5	158.7	146.5	139.4	137.6	136.7
40°	196.7	192.7	177.9	159.1	142.4	131.8	125.9	124.6	124.6
42.5°	176.5	172.1	159.1	142.0	127.2	116.5	112.5	111.1	111.6
45°	158.2	153.7	141.6	125.9	111.6	102.6	99.4	99.4	99.4
47.5°	141.2	137.1	125.9	109.8	98.2	90.9	87.8	87.8	88.3
50°	125.4	122.8	110.2	96.4	86.0	79.3	77.1	76.6	77.5
52.5°	110.7	107.6	96.4	83.8	73.9	68.6	66.3	65.8	66.3
55°	98.2	94.5	84.7	72.6	63.7	58.2	55.6	55.2	56.0
57.5°	86.0	83.3	73.1	62.3	53.8	48.4	46.2	45.3	45.7
60°	74.8	72.2	62.8	52.4	44.8	39.4	36.3	35.4	35.9
62.5°	64.6	62.3	53.3	43.5	35.9	30.9	27.8	25.5	26.4
65°	55.2	52.9	44.8	35.0	28.3	22.8	18.4	16.6	17.0
67.5°	47.1	44.4	36.8	27.8	21.1	15.2	10.3	9.4	9.4
70°	38.9	36.3	29.6	21.6	14.8	8.1	4.4	4.4	4.4
72.5°	31.3	29.2	22.8	16.1	9.4	3.6	1.8	1.8	1.8
75°	24.2	22.4	17.0	11.2	5.8	1.8	1.4	0.9	0.9
77.5°	17.9	16.1	12.1	7.6	3.6	0.9	0.9	0.9	0.9
80°	12.1	10.8	8.1	4.4	1.8	0.5	0.5	0.5	0.5
82.5°	7.2	6.2	4.4	2.3	0.9	0.5	0.5	0.5	0.5
85°	3.6	2.7	1.8	0.9	0.5	0.5	0.5	0.5	0.5
87.5°	0.9	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0
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)