

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: P581117

Luminaire Tested: **HC405D010-HM40525940-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581117
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: HC405D010-HM40525940-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 629.6 lumens
Efficiency: N/A
Efficacy: 104.9 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

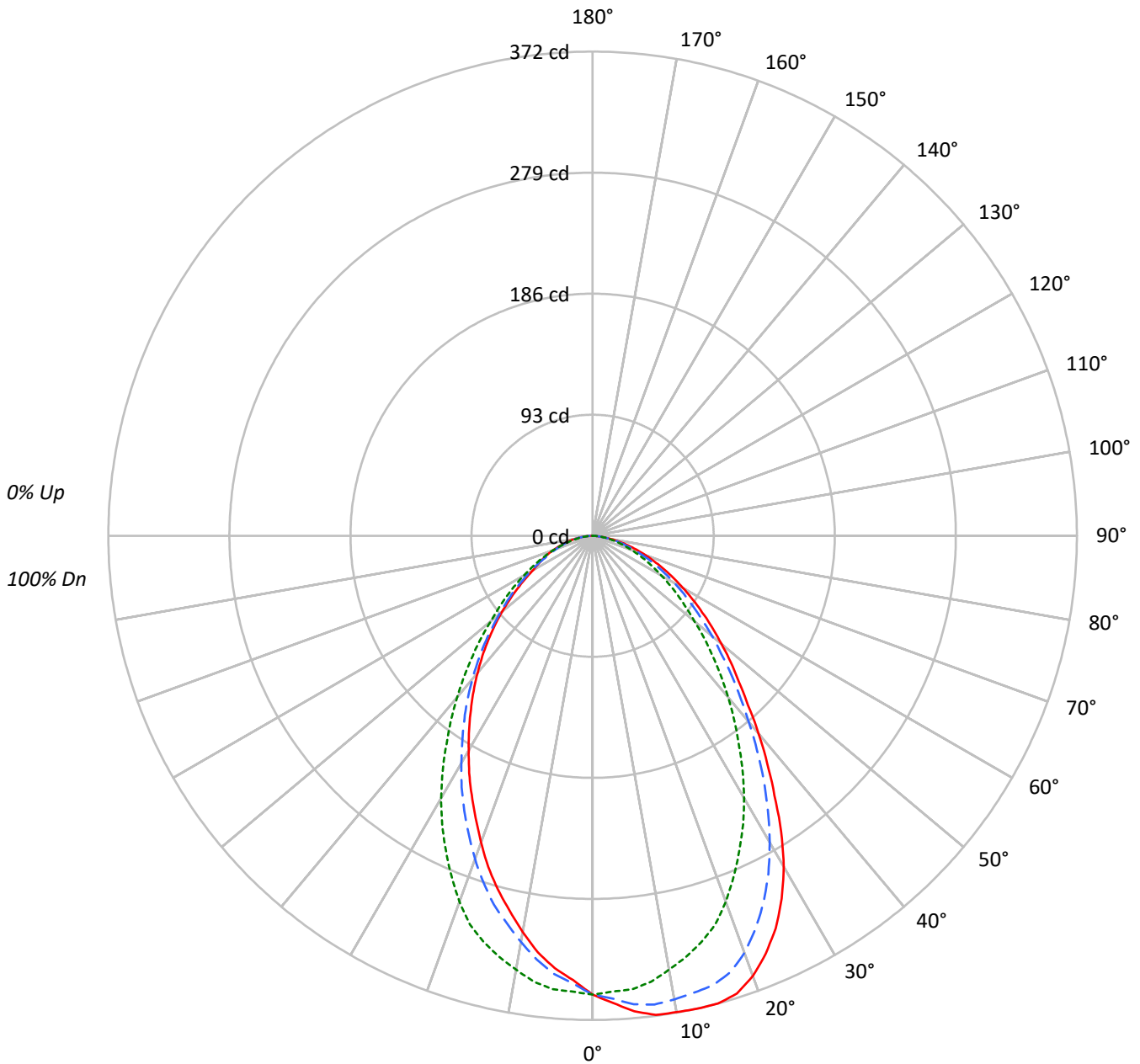
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	100	100
1	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87	87	87	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76	76	76	76
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66	66	66	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58	58	58	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52	52	52	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47	47	47	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42	42	42	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38	38	38	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35	35	35	35
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32	32	32	32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	43479	43479	43479
5°	45404	43299	41293
10°	46542	42397	38714
15°	47516	41259	35921
20°	47254	39260	32881
25°	45279	36297	29914
30°	41817	33143	27104
35°	36666	29483	24544
40°	31930	26036	22108
45°	27770	22712	19764
50°	24754	19573	17424
55°	22107	17204	15075
60°	19735	15023	13001
65°	17570	13192	12346
70°	15399	11396	11504
75°	13058	9674	10675
80°	10016	8240	9731
85°	5944	6369	8208



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.0	5.2
10°-20°	91.2	14.5
20°-30°	124.5	19.8
30°-40°	125.1	19.9
40°-50°	103.5	16.4
50°-60°	75.0	11.9
60°-70°	47.5	7.5
70°-80°	24.0	3.8
80°-90°	5.9	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°	248.8	39.5
0°-40°	373.8	59.4
0°-60°	552.2	87.7
0°-90°	629.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	629.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	352	352	352	352	352	
5°	367	361	350	338	334	35
15°	372	358	323	293	281	105
25°	333	311	267	233	220	152
35°	244	229	196	172	163	153
45°	159	150	130	117	113	124
55°	103	94	80	73	70	93
65°	60	54	45	41	42	60
75°	27	24	20	21	22	29
85°	4	4	4	5	6	6
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°	352.5	352.5	352.5	352.5	352.5	352.5	352.5	352.5	352.5
2.5°	359.2	358.0	355.9	353.4	350.5	347.2	344.2	342.7	341.7
5°	366.7	365.0	361.3	355.9	349.7	343.5	338.0	334.7	333.5
7.5°	371.3	368.8	363.3	355.0	345.5	336.4	328.5	323.9	322.7
10°	371.6	368.8	361.7	350.5	338.5	326.4	316.9	310.3	309.1
12.5°	372.1	368.3	359.6	346.3	331.4	316.4	304.9	297.0	294.9
15°	372.1	368.3	357.5	341.7	323.1	306.1	293.3	284.1	281.3
17.5°	368.8	364.6	351.7	333.5	313.1	294.1	279.1	269.6	266.7
20°	360.0	355.5	341.0	321.1	299.1	279.1	264.2	254.2	250.5
22.5°	347.5	342.2	326.9	305.3	283.3	263.0	248.5	238.1	234.7
25°	332.7	327.2	310.6	289.5	266.7	247.7	233.1	223.6	219.8
27.5°	314.4	308.6	292.4	271.3	250.2	231.1	217.8	209.1	205.3
30°	293.6	287.5	272.1	251.7	232.7	214.4	201.6	194.5	190.3
32.5°	269.6	264.2	250.5	232.2	214.4	197.0	186.3	180.0	176.7
35°	243.5	240.6	228.9	213.2	195.8	181.3	171.7	165.9	163.0
37.5°	220.3	217.4	207.4	194.1	178.8	165.5	157.7	152.7	150.2
40°	198.3	195.8	186.3	175.0	161.7	150.2	143.5	139.8	137.3
42.5°	176.7	175.5	167.5	157.2	145.6	135.6	130.2	127.3	125.3
45°	159.2	157.7	150.2	140.2	130.2	121.9	117.4	115.3	113.3
47.5°	143.9	141.9	133.9	125.3	116.1	108.6	104.5	102.5	101.6
50°	129.0	126.9	119.9	111.1	102.0	96.6	93.3	91.3	90.8
52.5°	115.8	113.6	105.8	97.5	90.5	85.8	83.0	80.9	80.0
55°	102.8	100.3	93.8	85.8	80.0	75.9	73.0	70.9	70.1
57.5°	91.3	88.8	83.0	75.5	70.1	66.4	63.9	61.9	60.9
60°	80.0	78.0	72.6	65.5	60.9	57.7	55.2	53.5	52.7
62.5°	69.7	68.0	62.7	56.4	52.7	49.8	47.7	46.1	46.9
65°	60.2	58.5	53.5	48.1	45.2	42.3	40.6	40.6	42.3
67.5°	51.0	49.4	45.2	40.6	38.1	36.1	34.8	36.1	37.3
70°	42.7	41.1	37.3	33.6	31.6	29.9	29.9	31.1	31.9
72.5°	34.8	33.1	30.3	27.4	25.8	24.5	25.8	26.6	27.4
75°	27.4	26.1	23.6	21.6	20.3	19.9	21.1	22.0	22.4
77.5°	20.3	19.5	17.8	16.2	15.3	15.8	17.0	17.4	17.8
80°	14.1	13.7	12.5	11.6	11.6	12.0	12.8	13.3	13.7
82.5°	8.7	8.7	7.8	7.5	7.8	8.7	9.1	9.5	9.5
85°	4.2	4.5	4.2	4.2	4.5	5.4	5.4	5.8	5.8
87.5°	1.2	1.2	1.7	1.7	2.0	2.0	2.0	2.0	2.5
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)