

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: P581061

Luminaire Tested: **HC405D010-HM40525927-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581061
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC405D010-HM40525927-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 523.9 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

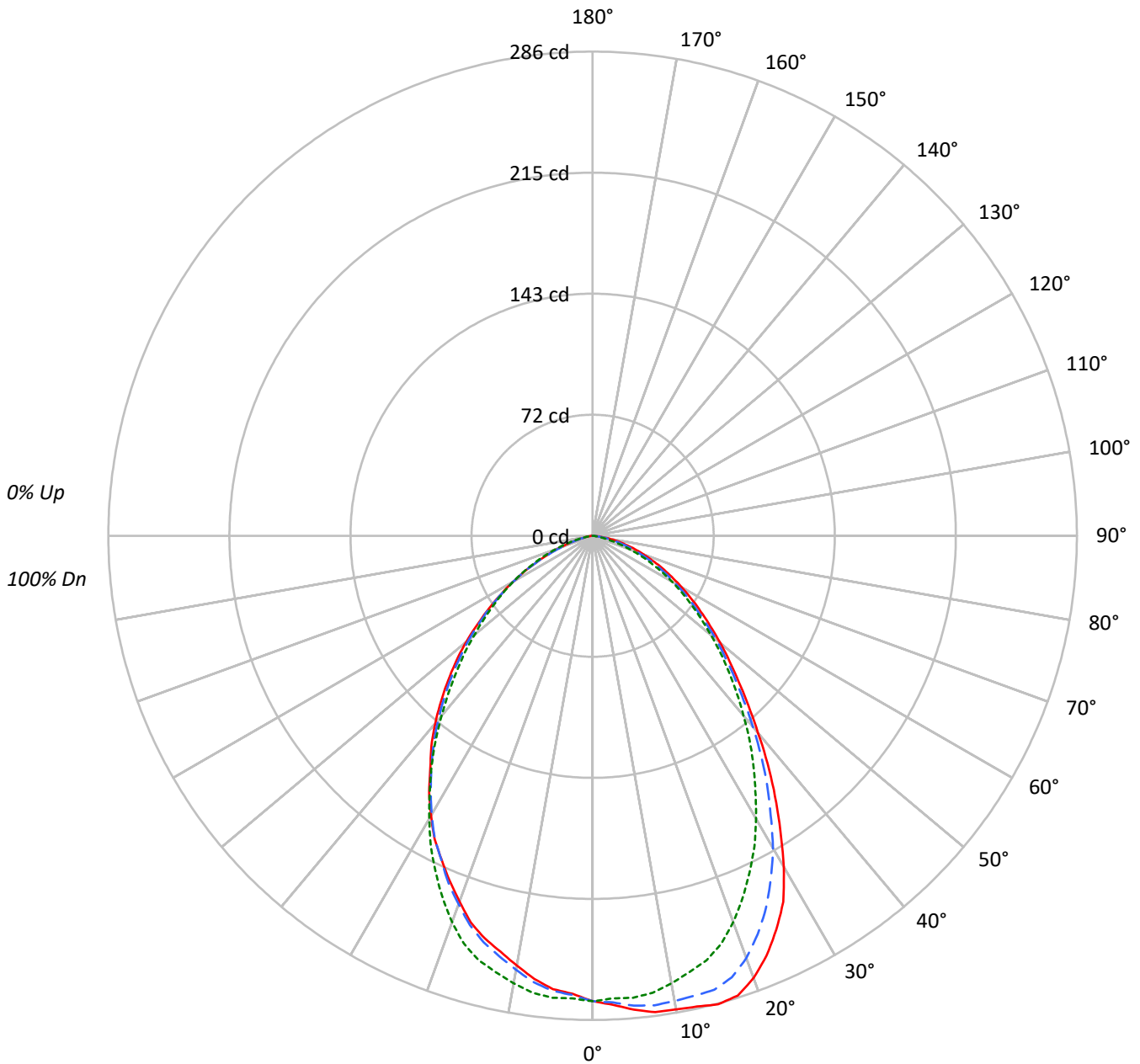
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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CATALOG NUMBER: HC405D010-HM40525927-41RWWH

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				100															
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88															
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77				77															
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67				67															
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59				59															
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				52															
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47				47															
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42				42															
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38															
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				35															
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32															

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	33908	33908	33908
5°	34793	33913	33282
10°	35583	33617	32289
15°	36585	33150	31439
20°	36491	31870	30164
25°	34936	29846	28716
30°	32160	27488	27189
35°	28278	24936	25146
40°	24474	22317	23267
45°	21264	19833	21020
50°	18863	17481	18671
55°	16752	15354	16021
60°	14925	13297	13297
65°	13250	11062	10361
70°	11468	8403	7393
75°	9627	5528	4527
80°	7245	2628	2415
85°	3821	991	991



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.0	5.0
10°-20°	73.8	14.1
20°-30°	104.1	19.9
30°-40°	107.5	20.5
40°-50°	91.1	17.4
50°-60°	66.3	12.7
60°-70°	38.7	7.4
70°-80°	14.4	2.7
80°-90°	1.9	0.4
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°	203.9	38.9
0°-40°	311.4	59.4
0°-60°	468.9	89.5
0°-90°	523.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	523.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	275	275	275	275	275	
5°	281	279	274	270	269	27
15°	286	278	260	249	246	81
25°	257	242	219	211	211	117
35°	188	180	166	166	167	117
45°	122	118	114	118	120	95
55°	78	74	71	74	74	70
65°	45	42	38	36	36	45
75°	20	17	12	9	10	22
85°	3	2	1	1	1	4
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°	274.9	274.9	274.9	274.9	274.9	274.9	274.9	274.9	274.9
2.5°	277.3	276.6	275.9	274.9	273.5	272.5	271.5	270.8	270.8
5°	281.0	280.0	278.6	276.3	273.9	271.8	269.8	268.8	268.8
7.5°	283.8	282.4	279.7	276.3	272.2	269.1	266.0	264.7	264.0
10°	284.1	282.7	279.0	273.9	268.4	263.7	260.3	258.1	257.8
12.5°	284.8	283.1	278.3	271.2	264.0	258.1	254.4	252.3	251.6
15°	286.5	284.1	277.6	268.4	259.6	252.7	248.6	246.9	246.2
17.5°	284.8	281.4	273.5	262.6	252.7	245.2	241.1	239.4	239.4
20°	278.0	274.6	265.4	253.3	242.8	235.6	231.5	230.5	229.8
22.5°	268.4	264.7	254.7	242.1	231.5	225.1	222.3	221.0	220.6
25°	256.7	253.0	242.4	229.5	219.3	213.7	211.3	211.3	211.0
27.5°	243.8	239.0	228.1	216.8	206.9	202.8	201.8	201.8	202.1
30°	225.8	222.3	213.0	202.1	193.0	190.2	190.2	190.9	190.9
32.5°	206.2	203.8	195.7	186.1	178.9	177.2	177.9	179.3	179.7
35°	187.8	185.1	179.7	171.0	165.6	164.9	165.9	167.0	167.0
37.5°	169.7	167.0	163.2	156.4	152.3	152.7	154.0	155.4	156.4
40°	152.0	149.9	147.2	141.8	138.6	140.1	141.8	143.1	144.5
42.5°	136.2	134.2	132.1	128.0	126.0	127.7	129.7	131.1	132.5
45°	121.9	120.5	118.5	115.1	113.7	115.4	117.8	119.2	120.5
47.5°	109.6	109.0	106.2	103.2	102.5	104.2	106.2	107.9	109.0
50°	98.3	97.3	94.9	91.8	91.1	93.9	95.2	96.2	97.3
52.5°	87.4	86.4	83.6	80.9	80.9	83.0	84.0	84.3	85.4
55°	77.9	76.8	74.1	72.1	71.4	73.1	73.8	73.8	74.5
57.5°	69.0	68.0	65.3	62.9	62.5	63.6	63.6	63.6	63.9
60°	60.5	59.4	56.6	54.6	53.9	54.3	53.9	53.6	53.9
62.5°	52.6	51.5	48.8	46.4	45.7	45.7	44.7	44.4	44.7
65°	45.4	43.7	41.7	39.3	37.9	36.9	35.5	35.5	35.5
67.5°	38.2	36.9	34.5	32.1	30.4	28.7	26.7	27.4	27.7
70°	31.8	30.8	28.0	25.7	23.3	21.2	19.4	20.2	20.5
72.5°	26.0	24.6	22.2	19.4	17.4	14.6	13.6	14.3	14.3
75°	20.2	18.7	16.7	14.0	11.6	9.2	9.2	9.5	9.5
77.5°	15.0	13.6	11.6	9.2	7.2	5.4	5.8	5.8	5.8
80°	10.2	9.2	7.5	5.4	3.7	3.1	3.1	3.1	3.4
82.5°	5.8	5.1	4.1	2.7	1.7	1.7	1.7	1.7	1.7
85°	2.7	2.0	1.7	1.0	0.7	0.7	0.7	0.7	0.7
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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)