

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: P581081

Luminaire Tested: **HC405D010-HM40525930-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581081
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-HM40525930-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 576.8 lumens
Efficiency: N/A
Efficacy: 96.1 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

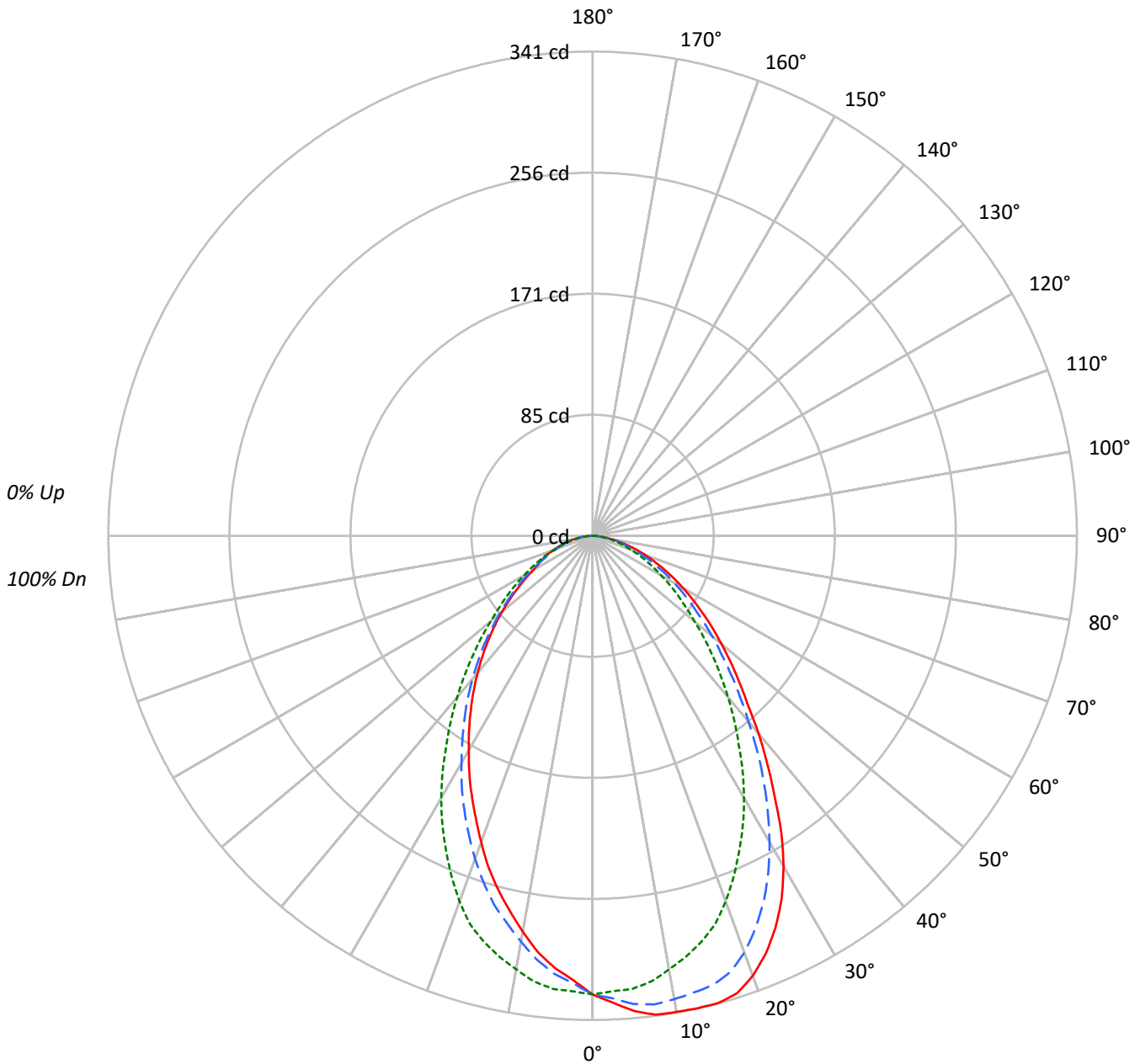
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P581081

CATALOG NUMBER: HC405D010-HM40525930-41WWW

Luminous Intensity Polar Plot





TEST NUMBER: P581081

CATALOG NUMBER: HC405D010-HM40525930-41WWW

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	39841	39841	39841
5°	41602	39659	37826
10°	42647	38840	35458
15°	43519	37798	32895
20°	43290	35966	30125
25°	41469	33262	27424
30°	38313	30365	24839
35°	33579	26998	22496
40°	29241	23863	20256
45°	25468	20810	18089
50°	22682	17942	15965
55°	20257	15763	13806
60°	18082	13765	11891
65°	16052	12083	11324
70°	14137	10386	10567
75°	11962	8864	9770
80°	9163	7600	8879
85°	5236	5944	7501



TEST NUMBER: P581081

CATALOG NUMBER: HC405D010-HM40525930-41WWW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.3	5.2
10°-20°	83.5	14.5
20°-30°	114.1	19.8
30°-40°	114.6	19.9
40°-50°	94.8	16.4
50°-60°	68.7	11.9
60°-70°	43.5	7.5
70°-80°	22.0	3.8
80°-90°	5.4	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°	227.9	39.5
0°-40°	342.5	59.4
0°-60°	505.9	87.7
0°-90°	576.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	576.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	323	323	323	323	323	
5°	336	331	320	310	306	32
15°	341	328	296	269	258	96
25°	305	285	244	214	202	139
35°	223	210	179	157	149	140
45°	146	138	119	108	104	114
55°	94	86	73	67	64	85
65°	55	49	41	37	39	55
75°	25	22	19	19	20	27
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



TEST NUMBER: P581081

CATALOG NUMBER: HC405D010-HM40525930-41WWW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0
2.5°	329.2	327.9	326.1	323.8	321.1	318.0	315.4	313.9	313.1
5°	336.0	334.4	331.0	326.1	320.3	314.6	309.7	306.7	305.5
7.5°	340.2	337.9	332.9	325.3	316.6	308.2	301.0	296.8	295.7
10°	340.5	337.9	331.4	321.1	310.1	299.1	290.3	284.2	283.1
12.5°	340.8	337.4	329.5	317.3	303.6	290.0	279.3	272.1	270.2
15°	340.8	337.4	327.6	313.1	296.0	280.5	268.7	260.3	257.6
17.5°	337.9	334.0	322.2	305.5	286.9	269.4	255.7	247.0	244.4
20°	329.8	325.6	312.4	294.1	274.0	255.7	242.1	232.9	229.5
22.5°	318.5	313.5	299.4	279.7	259.6	241.0	227.7	218.1	215.1
25°	304.7	299.9	284.7	265.2	244.4	226.9	213.6	204.9	201.5
27.5°	288.1	282.7	267.9	248.6	229.2	211.7	199.5	191.5	188.1
30°	269.0	263.3	249.2	230.6	213.2	196.5	184.7	178.2	174.4
32.5°	247.0	242.1	229.5	212.8	196.5	180.5	170.6	164.9	161.9
35°	223.0	220.4	209.7	195.3	179.3	166.1	157.3	152.0	149.4
37.5°	201.8	199.1	190.0	177.9	163.8	151.6	144.4	139.8	137.6
40°	181.6	179.3	170.6	160.4	148.2	137.6	131.4	128.0	125.8
42.5°	161.9	160.7	153.6	144.0	133.4	124.3	119.3	116.7	114.7
45°	146.0	144.4	137.6	128.5	119.3	111.7	107.6	105.7	103.7
47.5°	131.9	130.0	122.7	114.7	106.3	99.5	95.8	93.9	93.1
50°	118.2	116.3	109.9	101.8	93.5	88.5	85.5	83.6	83.2
52.5°	106.0	104.1	96.9	89.3	82.9	78.7	76.0	74.1	73.3
55°	94.2	91.9	85.9	78.7	73.3	69.6	66.9	65.0	64.2
57.5°	83.6	81.4	76.0	69.1	64.2	60.8	58.6	56.6	55.8
60°	73.3	71.4	66.5	60.0	55.8	52.8	50.5	49.0	48.2
62.5°	63.8	62.3	57.4	51.6	48.2	45.6	43.7	42.2	42.9
65°	55.0	53.6	49.0	44.0	41.4	38.8	37.2	37.2	38.8
67.5°	46.8	45.2	41.4	37.2	35.0	33.0	31.9	33.0	34.2
70°	39.2	37.6	34.2	30.8	28.8	27.4	27.4	28.5	29.3
72.5°	31.9	30.4	27.7	25.1	23.6	22.5	23.6	24.3	25.1
75°	25.1	23.9	21.7	19.7	18.6	18.3	19.4	20.1	20.5
77.5°	18.6	17.8	16.3	14.9	14.1	14.4	15.5	16.0	16.3
80°	12.9	12.5	11.4	10.7	10.7	11.0	11.8	12.1	12.5
82.5°	7.9	7.9	7.3	6.8	7.3	7.9	8.4	8.7	8.7
85°	3.7	4.2	3.7	3.7	4.2	5.0	5.0	5.3	5.3
87.5°	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9	2.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)