

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: P581063

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581063  
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-HM40525927-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 518.4 lumens  
Efficiency: N/A  
Efficacy: 86.4 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

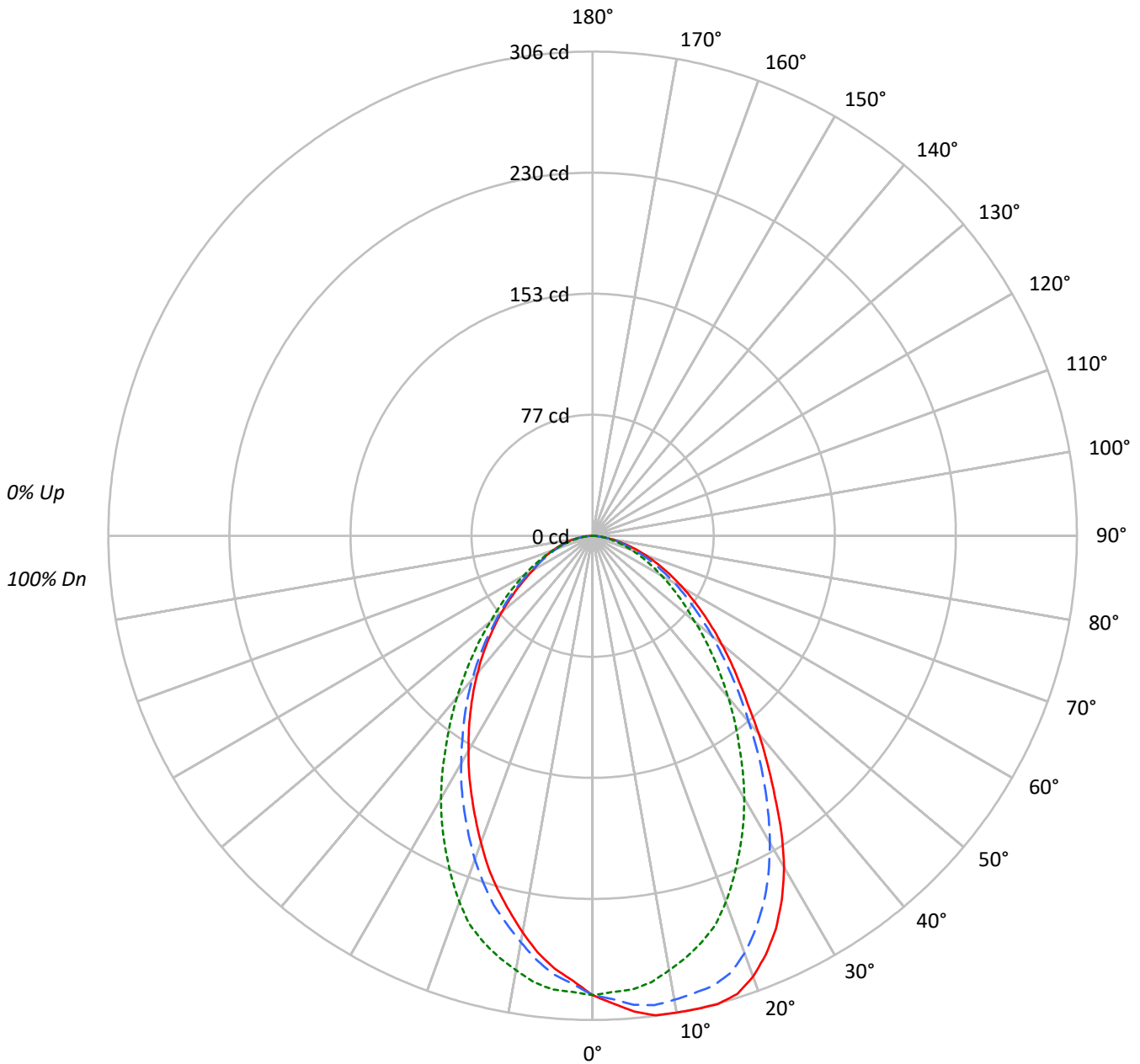
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				
1	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76				
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	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	42	37	47	41	37	46	41	37	35				35				
10	59	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°	35807	35807	35807
5°	37380	35647	34012
10°	38326	34919	31876
15°	39114	33967	29562
20°	38919	32330	27079
25°	37291	29887	24634
30°	34453	27289	22318
35°	30206	24273	20223
40°	26278	21447	18195
45°	22886	18717	16275
50°	20379	16119	14354
55°	18214	14172	12430
60°	16257	12384	10706
65°	14447	10857	10157
70°	12694	9377	9485
75°	10771	7959	8817
80°	8240	6748	7956
85°	4812	5236	6793



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.2	5.2
10°-20°	75.1	14.5
20°-30°	102.6	19.8
30°-40°	103.0	19.9
40°-50°	85.2	16.4
50°-60°	61.7	11.9
60°-70°	39.1	7.5
70°-80°	19.8	3.8
80°-90°	4.8	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°	204.8	39.5
0°-40°	307.8	59.4
0°-60°	454.7	87.7
0°-90°	518.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	518.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	290	290	290	290	290	
5°	302	298	288	278	275	29
15°	306	294	266	242	232	86
25°	274	256	220	192	181	125
35°	201	188	161	141	134	126
45°	131	124	107	97	93	102
55°	85	77	66	60	58	76
65°	50	44	37	34	35	49
75°	23	20	17	17	18	24
85°	3	3	4	4	5	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°	290.3	290.3	290.3	290.3	290.3	290.3	290.3	290.3	290.3
2.5°	295.8	294.8	293.1	291.0	288.6	285.9	283.5	282.2	281.5
5°	301.9	300.5	297.5	293.1	287.9	282.8	278.4	275.7	274.7
7.5°	305.7	303.6	299.2	292.4	284.5	277.1	270.5	266.7	265.7
10°	306.0	303.6	297.8	288.6	278.8	268.8	260.9	255.5	254.5
12.5°	306.3	303.3	296.1	285.2	273.0	260.6	251.1	244.6	242.9
15°	306.3	303.3	294.4	281.5	266.0	252.1	241.5	233.9	231.5
17.5°	303.6	300.2	289.7	274.7	257.9	242.2	229.8	222.0	219.6
20°	296.5	292.7	280.8	264.3	246.3	229.8	217.6	209.4	206.3
22.5°	286.2	281.8	269.1	251.4	233.2	216.6	204.6	196.0	193.3
25°	274.0	269.4	255.8	238.5	219.6	204.0	191.9	184.1	181.0
27.5°	258.9	254.1	240.8	223.4	206.0	190.2	179.3	172.2	169.1
30°	241.9	236.8	224.0	207.4	191.6	176.6	166.1	160.1	156.7
32.5°	222.0	217.6	206.3	191.2	176.6	162.2	153.3	148.2	145.5
35°	200.6	198.1	188.5	175.6	161.2	149.3	141.4	136.7	134.3
37.5°	181.4	179.0	170.8	159.8	147.2	136.3	129.8	125.6	123.6
40°	163.2	161.2	153.3	144.1	133.2	123.6	118.2	115.1	113.0
42.5°	145.5	144.5	138.0	129.5	119.9	111.7	107.3	104.9	103.2
45°	131.2	129.8	123.6	115.4	107.3	100.4	96.7	95.0	93.3
47.5°	118.5	116.8	110.3	103.2	95.7	89.4	86.0	84.3	83.6
50°	106.2	104.5	98.7	91.6	84.0	79.6	76.8	75.1	74.8
52.5°	95.3	93.6	87.1	80.2	74.5	70.7	68.3	66.6	65.9
55°	84.7	82.6	77.2	70.7	65.9	62.5	60.2	58.5	57.8
57.5°	75.1	73.1	68.3	62.2	57.8	54.7	52.6	50.8	50.2
60°	65.9	64.2	59.8	53.9	50.2	47.4	45.4	44.0	43.4
62.5°	57.4	56.1	51.5	46.4	43.4	41.0	39.3	37.9	38.6
65°	49.5	48.1	44.0	39.6	37.2	34.8	33.5	33.5	34.8
67.5°	42.0	40.6	37.2	33.5	31.4	29.7	28.7	29.7	30.8
70°	35.2	33.8	30.8	27.7	26.0	24.6	24.6	25.7	26.3
72.5°	28.7	27.4	25.0	22.6	21.2	20.2	21.2	21.9	22.6
75°	22.6	21.6	19.5	17.7	16.7	16.3	17.4	18.0	18.5
77.5°	16.7	16.0	14.6	13.3	12.6	12.9	14.0	14.3	14.6
80°	11.6	11.2	10.2	9.5	9.5	9.9	10.6	10.9	11.2
82.5°	7.2	7.2	6.5	6.1	6.5	7.2	7.5	7.8	7.8
85°	3.4	3.7	3.4	3.4	3.7	4.4	4.4	4.8	4.8
87.5°	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7	2.0
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)