

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: P581459

Luminaire Tested: **HC407D010-HM40525835-41WWW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581459  
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: HC407D010-HM40525835-41WWW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 899.8 lumens  
Efficiency: N/A  
Efficacy: 112.5 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

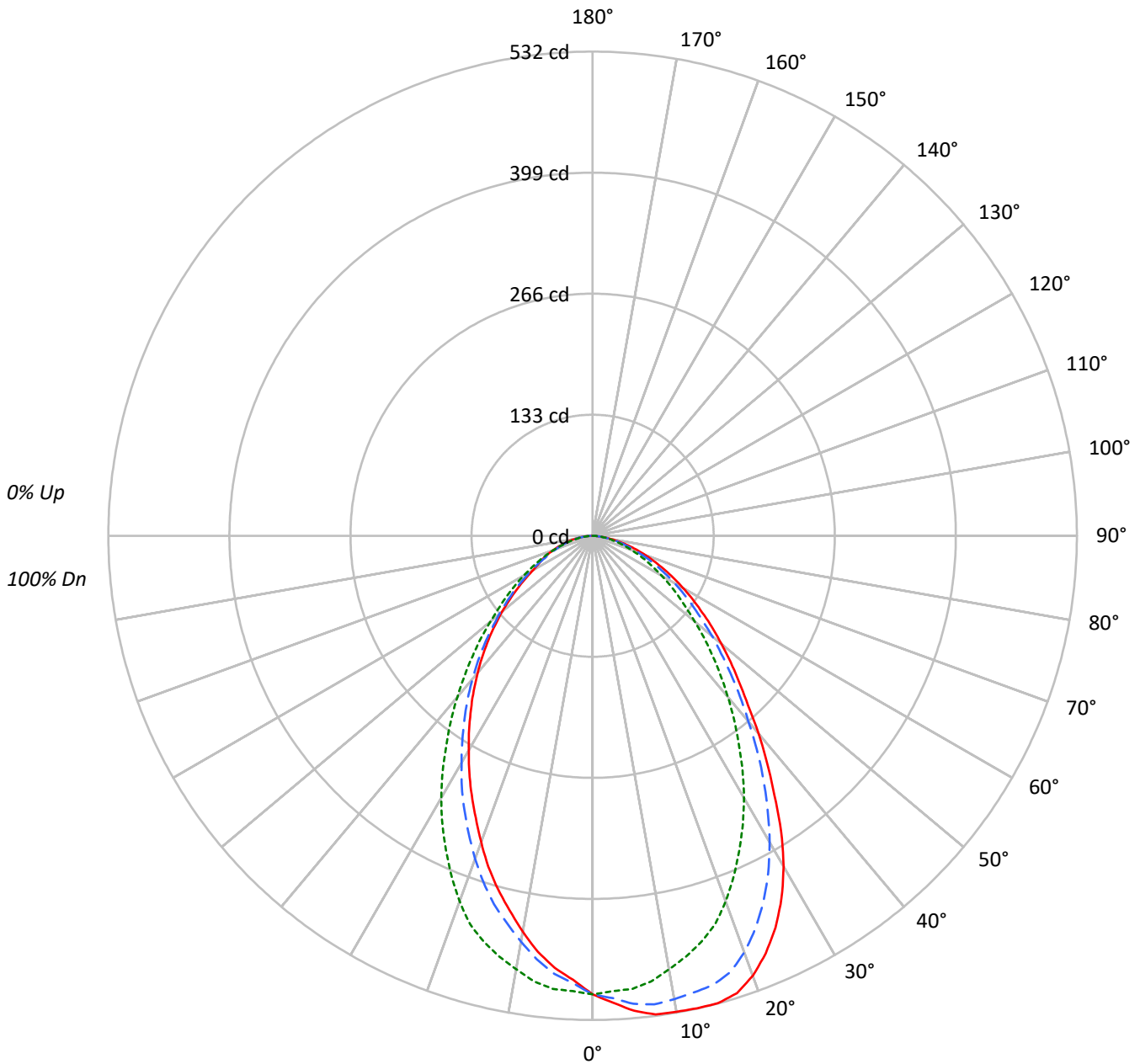
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
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																			
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°	62142	62142	62142
5°	64880	61871	59011
10°	66519	60570	55322
15°	67896	58970	51321
20°	67534	56101	46992
25°	64687	51867	42762
30°	59777	47357	38754
35°	52401	42132	35069
40°	45632	37211	31591
45°	39702	32480	28224
50°	35385	27978	24908
55°	31612	24601	21526
60°	28221	21511	18576
65°	25071	18854	17628
70°	22035	16265	16445
75°	18634	13821	15250
80°	14277	11791	13922
85°	8350	9199	11746



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.2	5.2
10°-20°	130.3	14.5
20°-30°	178.0	19.8
30°-40°	178.7	19.9
40°-50°	147.8	16.4
50°-60°	107.2	11.9
60°-70°	67.9	7.5
70°-80°	34.3	3.8
80°-90°	8.4	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°	355.5	39.5
0°-40°	534.2	59.4
0°-60°	789.2	87.7
0°-90°	899.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	899.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	504	504	504	504	504	
5°	524	516	500	483	477	50
15°	532	511	462	419	402	150
25°	475	444	381	333	314	217
35°	348	327	280	245	233	218
45°	228	215	186	168	162	177
55°	147	134	114	104	100	132
65°	86	76	65	58	60	86
75°	39	34	29	30	32	42
85°	6	6	6	8	8	8
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°	503.8	503.8	503.8	503.8	503.8	503.8	503.8	503.8	503.8
2.5°	513.4	511.5	508.6	505.0	500.8	496.2	492.0	489.6	488.4
5°	524.0	521.7	516.3	508.6	499.7	490.8	483.1	478.4	476.6
7.5°	530.5	527.0	519.3	507.4	493.8	480.7	469.4	462.9	461.1
10°	531.1	527.0	516.9	500.8	483.6	466.5	452.9	443.4	441.7
12.5°	531.7	526.3	513.9	494.9	473.6	452.2	435.6	424.5	421.4
15°	531.7	526.3	511.0	488.4	461.8	437.4	419.1	406.0	401.9
17.5°	527.0	521.1	502.7	476.6	447.6	420.3	399.0	385.3	381.1
20°	514.5	508.0	487.3	458.8	427.4	399.0	377.6	363.4	358.0
22.5°	496.7	489.0	467.1	436.3	404.9	375.8	355.1	340.3	335.5
25°	475.3	467.7	443.9	413.8	381.1	353.9	333.1	319.6	314.2
27.5°	449.3	441.0	417.9	387.7	357.4	330.1	311.2	298.7	293.4
30°	419.7	410.8	388.9	359.8	332.5	306.5	288.0	278.0	272.1
32.5°	385.3	377.6	358.0	332.0	306.5	281.5	266.2	257.3	252.5
35°	348.0	343.8	327.2	304.6	279.8	259.0	245.4	237.2	232.9
37.5°	314.8	310.6	296.3	277.4	255.5	236.5	225.2	218.2	214.6
40°	283.4	279.8	266.2	250.1	231.1	214.6	205.1	199.7	196.2
42.5°	252.5	250.7	239.4	224.6	208.0	193.8	186.2	182.0	179.0
45°	227.6	225.2	214.6	200.4	186.2	174.2	167.7	164.8	161.8
47.5°	205.6	202.7	191.4	179.0	165.9	155.3	149.4	146.5	145.2
50°	184.4	181.4	171.3	158.9	145.8	138.2	133.4	130.4	129.8
52.5°	165.4	162.4	151.1	139.3	129.3	122.7	118.6	115.6	114.4
55°	147.0	143.5	133.9	122.7	114.4	108.5	104.4	101.4	100.1
57.5°	130.4	126.9	118.6	107.9	100.1	94.8	91.3	88.3	87.2
60°	114.4	111.4	103.8	93.7	87.2	82.4	78.9	76.5	75.3
62.5°	99.6	97.2	89.6	80.6	75.3	71.1	68.2	65.8	67.0
65°	85.9	83.5	76.5	68.7	64.6	60.4	58.0	58.0	60.4
67.5°	72.9	70.6	64.6	58.0	54.5	51.6	49.8	51.6	53.4
70°	61.1	58.7	53.4	48.0	45.1	42.7	42.7	44.5	45.6
72.5°	49.8	47.5	43.2	39.1	36.8	34.9	36.8	37.9	39.1
75°	39.1	37.3	33.8	30.8	29.0	28.4	30.3	31.4	32.0
77.5°	29.0	27.9	25.5	23.1	22.0	22.5	24.4	24.9	25.5
80°	20.1	19.6	17.8	16.6	16.6	17.2	18.3	19.0	19.6
82.5°	12.4	12.4	11.3	10.7	11.3	12.4	13.1	13.7	13.7
85°	5.9	6.5	5.9	5.9	6.5	7.7	7.7	8.3	8.3
87.5°	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0	3.5
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)