

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: P580576

Luminaire Tested: **HC440D010-HM43040830-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580576  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC440D010-HM43040830-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3299.9 lumens  
Efficiency: N/A  
Efficacy: 80.5 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

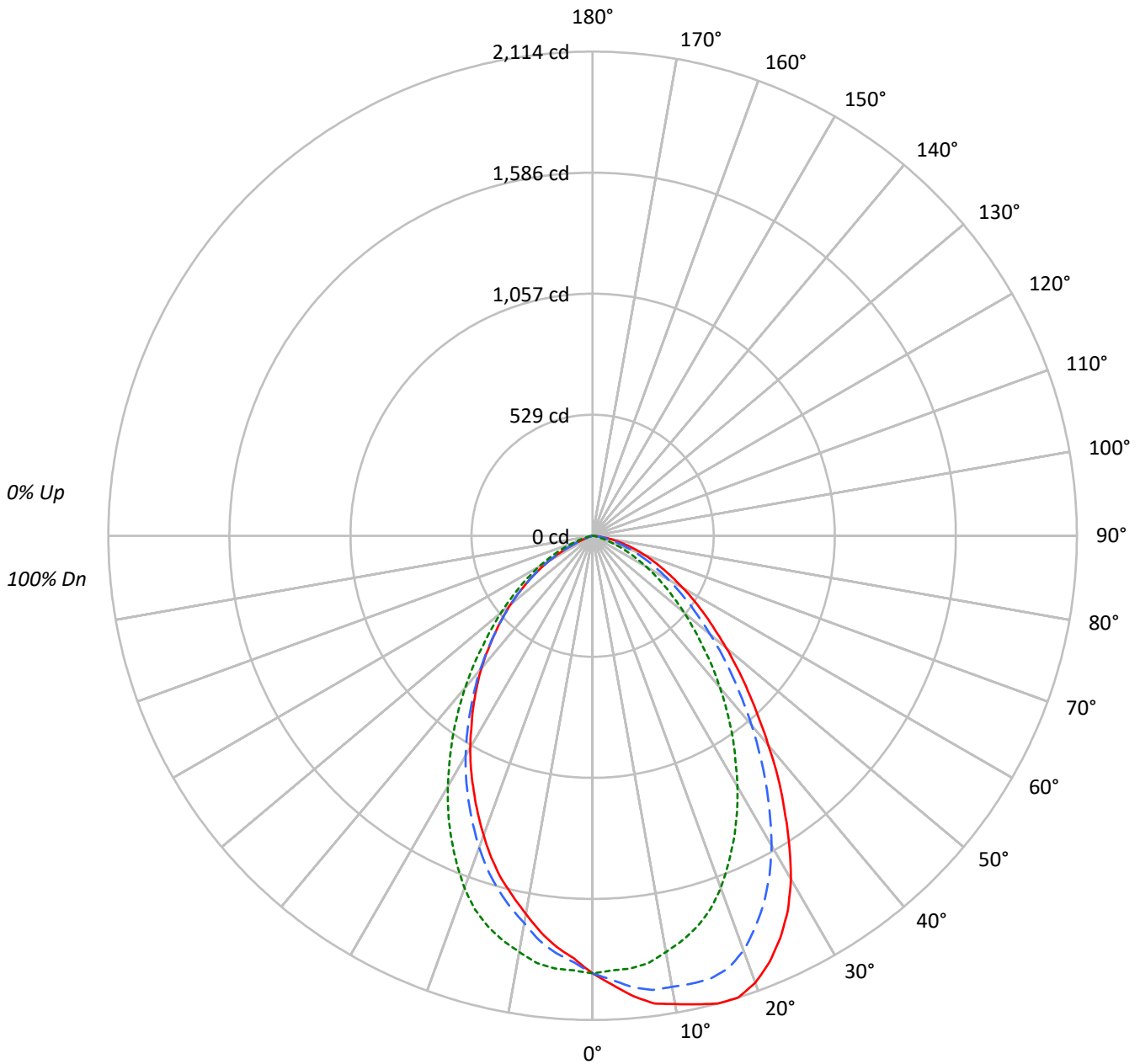
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89			
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78			
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69			
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61			
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55			
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49			
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44			
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40			
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37			
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	235639	235639	235639
5°	249677	234856	223093
10°	260041	231121	210004
15°	269989	225564	197458
20°	272525	214744	182637
25°	263701	198606	167181
30°	246542	179985	152112
35°	219737	160003	136679
40°	192092	139150	121632
45°	167355	118024	105238
50°	146010	100129	90208
55°	127974	82965	73051
60°	111948	67026	53631
65°	97569	49967	30120
70°	85255	32349	9773
75°	69913	16823	2573
80°	52137	7742	1918
85°	30711	3821	3821



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	180.3	5.5
10°-20°	504.6	15.3
20°-30°	697.7	21.1
30°-40°	701.6	21.3
40°-50°	566.1	17.2
50°-60°	382.8	11.6
60°-70°	194.8	5.9
70°-80°	62.4	1.9
80°-90°	9.5	0.3
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°	1382.7	41.9
0°-40°	2084.2	63.2
0°-60°	3033.1	91.9
0°-90°	3299.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3299.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1910	1910	1910	1910	1910	
5°	2016	1978	1897	1829	1802	194
15°	2114	2000	1766	1598	1546	596
25°	1938	1769	1459	1280	1228	887
35°	1459	1318	1063	929	908	912
45°	959	859	677	603	603	743
55°	595	514	386	337	340	535
65°	334	272	171	111	103	335
75°	147	103	35	8	5	158
85°	22	11	3	3	3	29
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°	1910.4	1910.4	1910.4	1910.4	1910.4	1910.4	1910.4	1910.4	1910.4
2.5°	1962.1	1951.2	1940.3	1921.3	1899.5	1877.8	1864.2	1853.3	1848.0
5°	2016.5	2002.9	1978.3	1937.6	1896.8	1858.8	1828.9	1809.9	1801.8
7.5°	2059.9	2040.9	2000.1	1943.0	1880.6	1820.7	1782.7	1755.6	1744.7
10°	2076.2	2054.5	2000.1	1924.1	1845.3	1771.9	1717.5	1690.4	1676.7
12.5°	2095.3	2070.8	2002.9	1907.7	1809.9	1723.0	1660.4	1625.1	1611.5
15°	2114.3	2081.7	2000.1	1883.3	1766.4	1665.9	1597.9	1562.6	1546.3
17.5°	2114.3	2076.2	1978.3	1842.5	1709.3	1603.4	1527.3	1486.6	1472.9
20°	2076.2	2032.7	1926.8	1777.2	1636.0	1521.9	1448.4	1407.8	1391.4
22.5°	2016.5	1967.5	1853.3	1698.4	1549.0	1437.6	1364.3	1326.1	1309.9
25°	1937.6	1888.7	1769.2	1608.7	1459.3	1347.9	1280.0	1244.6	1228.4
27.5°	1845.3	1790.9	1671.3	1511.0	1364.3	1258.2	1195.8	1163.1	1149.5
30°	1731.0	1679.5	1562.6	1404.9	1263.7	1165.8	1108.8	1078.9	1068.0
32.5°	1597.9	1554.5	1440.3	1293.5	1160.3	1070.7	1019.1	994.7	983.8
35°	1459.3	1418.5	1318.1	1182.1	1062.6	978.3	929.4	913.1	907.7
37.5°	1328.8	1293.5	1195.8	1070.7	962.0	888.6	845.1	834.2	828.9
40°	1193.0	1168.5	1078.9	964.7	864.2	798.9	763.6	755.4	755.4
42.5°	1070.7	1043.5	964.7	861.5	771.8	706.6	682.1	673.9	676.6
45°	959.4	932.1	858.8	763.6	676.6	622.3	603.3	603.3	603.3
47.5°	856.0	831.6	763.6	665.8	595.1	551.6	532.6	532.6	535.4
50°	760.9	744.6	668.6	584.3	521.8	481.0	467.5	464.7	470.1
52.5°	671.3	652.2	584.3	508.1	448.4	415.8	402.2	399.5	402.2
55°	595.1	573.4	513.6	440.2	385.8	353.2	337.0	334.3	339.7
57.5°	521.8	505.5	442.9	377.8	326.1	293.5	279.9	274.4	277.2
60°	453.8	437.5	380.5	317.9	271.7	239.1	220.2	214.7	217.4
62.5°	391.3	377.8	323.4	263.7	217.4	187.5	168.5	154.9	160.3
65°	334.3	320.7	271.7	212.0	171.2	138.6	111.4	100.6	103.2
67.5°	285.3	269.0	222.9	168.5	127.7	92.4	62.6	57.1	57.1
70°	236.4	220.2	179.4	130.5	89.7	48.9	27.1	27.1	27.1
72.5°	190.2	176.7	138.6	97.9	57.1	21.7	10.9	10.9	10.9
75°	146.7	135.9	103.2	67.9	35.3	10.9	8.2	5.4	5.4
77.5°	108.7	97.9	73.4	46.2	21.7	5.4	5.4	5.4	5.4
80°	73.4	65.2	48.9	27.1	10.9	2.7	2.7	2.7	2.7
82.5°	43.5	38.0	27.1	13.6	5.4	2.7	2.7	2.7	2.7
85°	21.7	16.3	10.9	5.4	2.7	2.7	2.7	2.7	2.7
87.5°	5.4	2.7	2.7	2.7	0.0	0.0	0.0	0.0	0.0
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)