

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: P580702

Luminaire Tested: **HC445D010-HM44560827-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580702
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: HC445D010-HM44560827-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3236.8 lumens
Efficiency: N/A
Efficacy: 73.6 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

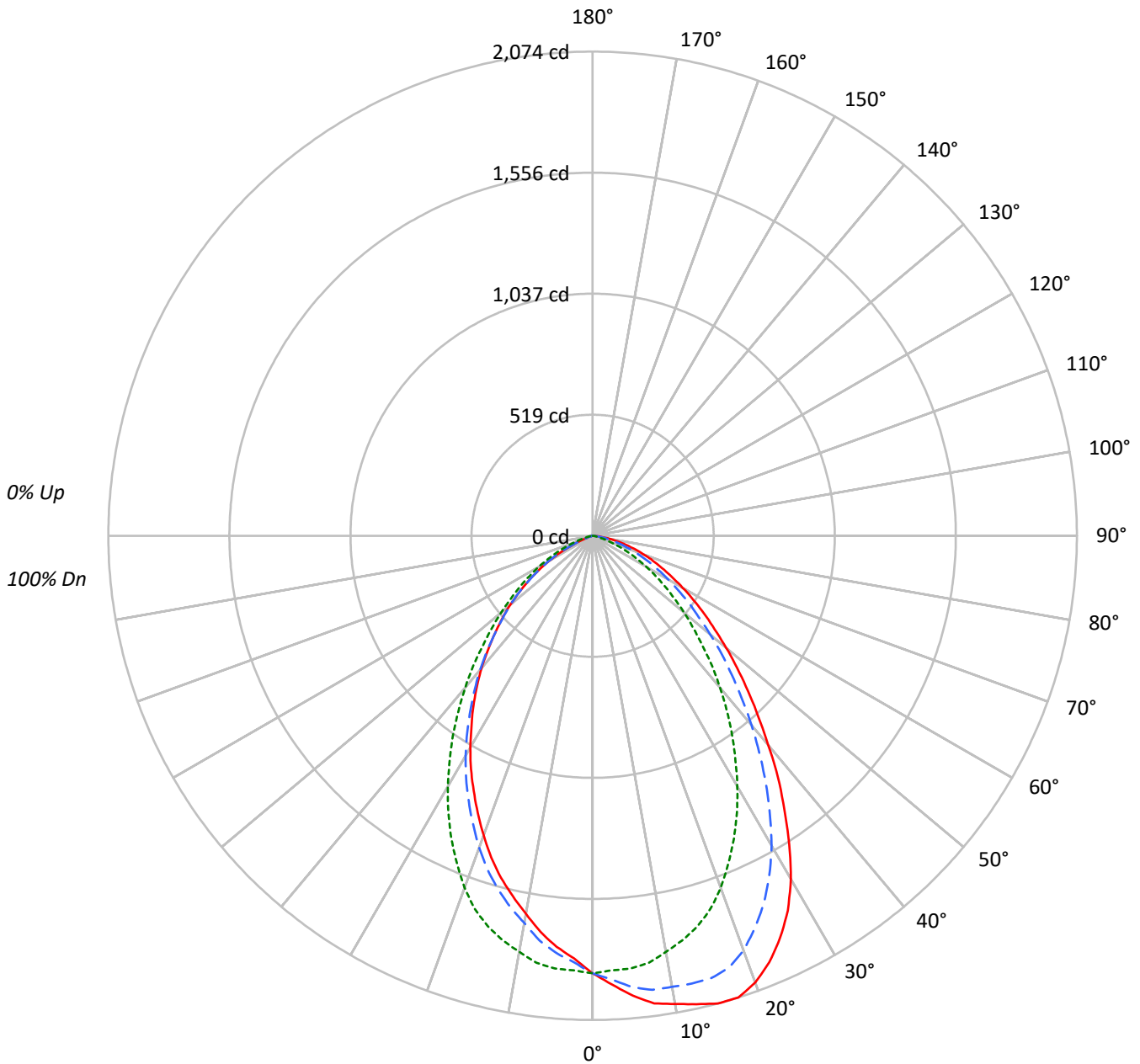
Input Watts (W): 44
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	231137	231137	231137
5°	244872	230361	218821
10°	255056	226687	205984
15°	264818	221247	193678
20°	267301	210622	179133
25°	258638	194795	163969
30°	241827	176539	149193
35°	215521	156932	134059
40°	188405	136494	119313
45°	164128	115774	103214
50°	143228	98191	88481
55°	125544	81395	71654
60°	109802	65768	52619
65°	95672	49033	29565
70°	83632	31736	9629
75°	68626	16537	2573
80°	51072	7600	1918
85°	30144	3821	3821



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.9	5.5
10°-20°	495.0	15.3
20°-30°	684.4	21.1
30°-40°	688.1	21.3
40°-50°	555.3	17.2
50°-60°	375.5	11.6
60°-70°	191.1	5.9
70°-80°	61.2	1.9
80°-90°	9.4	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°	1356.2	41.9
0°-40°	2044.3	63.2
0°-60°	2975.1	91.9
0°-90°	3236.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3236.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1874	1874	1874	1874	1874	
5°	1978	1940	1860	1794	1767	191
15°	2074	1962	1733	1567	1517	584
25°	1900	1735	1431	1255	1205	870
35°	1431	1293	1042	912	890	894
45°	941	842	664	592	592	729
55°	584	504	378	330	333	524
65°	328	267	168	109	101	329
75°	144	101	35	8	5	155
85°	21	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°	1873.9	1873.9	1873.9	1873.9	1873.9	1873.9	1873.9	1873.9	1873.9
2.5°	1924.5	1913.8	1903.1	1884.5	1863.2	1841.9	1828.5	1817.9	1812.5
5°	1977.7	1964.5	1940.5	1900.4	1860.5	1823.3	1793.9	1775.2	1767.3
7.5°	2020.5	2001.8	1961.8	1905.8	1844.6	1785.9	1748.5	1721.9	1711.3
10°	2036.4	2015.1	1961.8	1887.2	1809.9	1737.9	1684.6	1658.0	1644.6
12.5°	2055.1	2031.2	1964.5	1871.2	1775.2	1690.0	1628.6	1593.9	1580.7
15°	2073.8	2041.8	1961.8	1847.1	1732.6	1634.0	1567.3	1532.7	1516.7
17.5°	2073.8	2036.4	1940.5	1807.2	1676.6	1572.6	1498.0	1458.0	1444.7
20°	2036.4	1993.8	1889.8	1743.3	1604.6	1492.7	1420.7	1380.7	1364.7
22.5°	1977.7	1929.8	1817.9	1665.9	1519.3	1410.0	1338.1	1300.7	1284.8
25°	1900.4	1852.5	1735.3	1578.0	1431.3	1322.1	1255.4	1220.8	1204.8
27.5°	1809.9	1756.6	1639.2	1482.0	1338.1	1234.1	1172.8	1140.8	1127.5
30°	1697.9	1647.3	1532.7	1378.0	1239.5	1143.5	1087.6	1058.2	1047.5
32.5°	1567.3	1524.7	1412.7	1268.8	1138.2	1050.2	999.6	975.6	964.9
35°	1431.3	1391.4	1292.8	1159.5	1042.2	959.5	911.6	895.6	890.3
37.5°	1303.4	1268.8	1172.8	1050.2	943.6	871.6	828.9	818.3	813.0
40°	1170.1	1146.1	1058.2	946.3	847.7	783.6	749.0	741.0	741.0
42.5°	1050.2	1023.6	946.3	845.0	757.0	693.1	669.0	661.1	663.7
45°	940.9	914.3	842.3	749.0	663.7	610.4	591.7	591.7	591.7
47.5°	839.6	815.7	749.0	653.0	583.8	541.1	522.4	522.4	525.1
50°	746.4	730.3	655.7	573.1	511.7	471.8	458.4	455.8	461.1
52.5°	658.4	639.8	573.1	498.4	439.8	407.8	394.5	391.8	394.5
55°	583.8	562.5	503.8	431.9	378.5	346.5	330.5	327.8	333.2
57.5°	511.7	495.8	434.4	370.5	319.9	287.9	274.6	269.2	271.9
60°	445.1	429.2	373.2	311.9	266.6	234.6	215.9	210.6	213.3
62.5°	383.8	370.5	317.2	258.5	213.3	183.9	165.3	151.9	157.3
65°	327.8	314.5	266.6	207.9	168.0	136.0	109.3	98.6	101.3
67.5°	279.8	263.9	218.6	165.3	125.3	90.7	61.3	56.0	56.0
70°	231.9	215.9	175.9	127.9	88.0	48.0	26.7	26.7	26.7
72.5°	186.6	173.2	136.0	95.9	56.0	21.3	10.7	10.7	10.7
75°	144.0	133.3	101.3	66.6	34.7	10.7	8.0	5.4	5.4
77.5°	106.6	95.9	71.9	45.3	21.3	5.4	5.4	5.4	5.4
80°	71.9	64.0	48.0	26.7	10.7	2.7	2.7	2.7	2.7
82.5°	42.6	37.4	26.7	13.4	5.4	2.7	2.7	2.7	2.7
85°	21.3	16.0	10.7	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



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







(END OF REPORT)