

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: P580810

Luminaire Tested: **HC445D010-HM44560935-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580810
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-HM44560935-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3171.6 lumens
Efficiency: N/A
Efficacy: 72.1 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

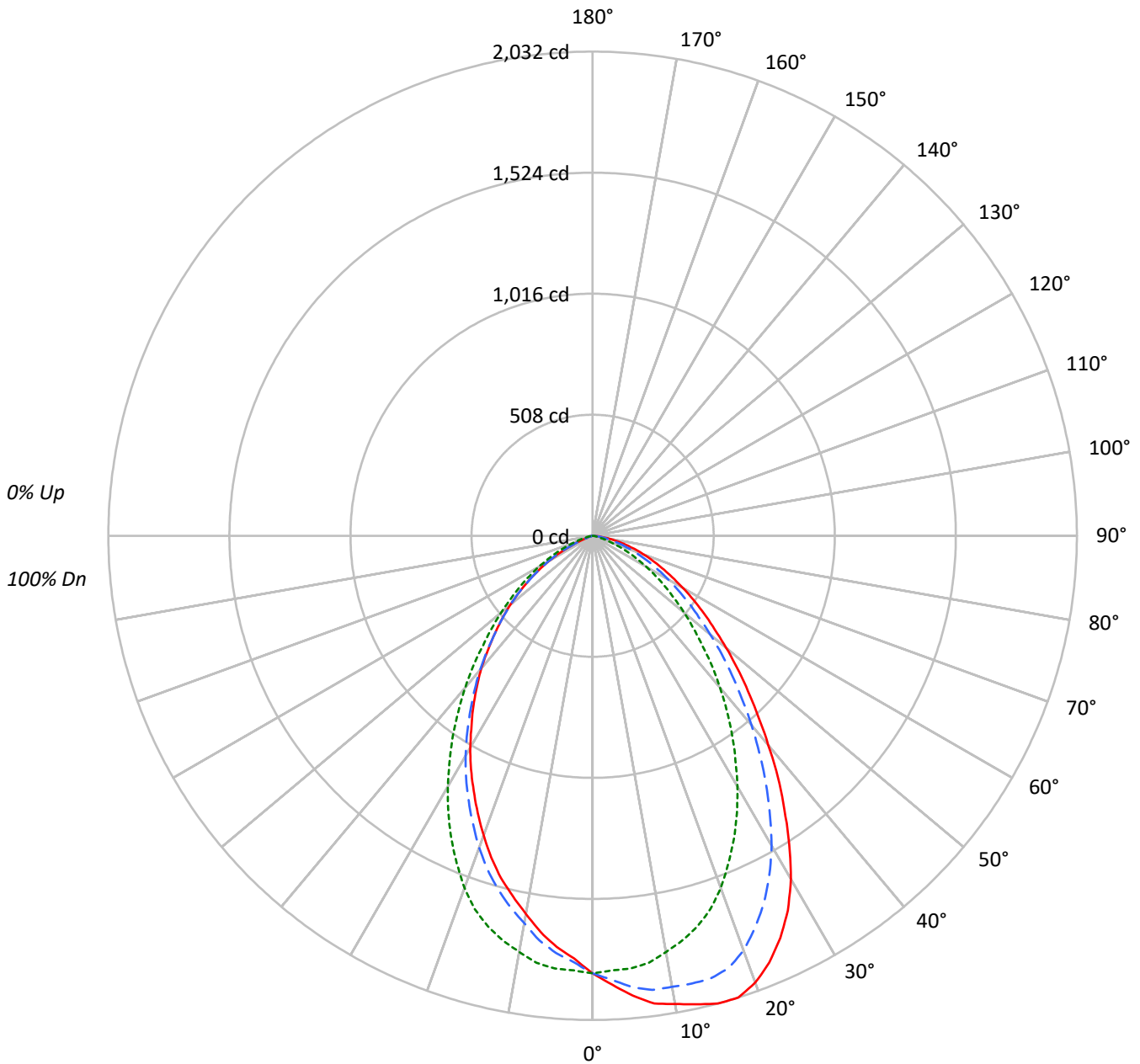
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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°	226487	226487	226487
5°	239957	225730	214414
10°	249933	222116	201838
15°	259493	216791	189783
20°	261933	206396	175536
25°	253453	190889	160676
30°	236970	172992	146202
35°	211200	153769	131364
40°	184637	133740	116930
45°	160848	113436	101139
50°	140330	96234	86697
55°	123007	79761	70213
60°	107607	64436	51534
65°	93746	48040	28982
70°	81937	31087	9413
75°	67196	16203	2526
80°	50149	7387	1847
85°	29578	3680	3680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.3	5.5
10°-20°	485.0	15.3
20°-30°	670.6	21.1
30°-40°	674.3	21.3
40°-50°	544.1	17.2
50°-60°	367.9	11.6
60°-70°	187.2	5.9
70°-80°	60.0	1.9
80°-90°	9.2	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°	1328.9	41.9
0°-40°	2003.2	63.2
0°-60°	2915.2	91.9
0°-90°	3171.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3171.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1836	1836	1836	1836	1836	
5°	1938	1902	1823	1758	1732	187
15°	2032	1922	1698	1536	1486	572
25°	1862	1700	1403	1230	1181	852
35°	1403	1267	1021	893	872	876
45°	922	825	650	580	580	714
55°	572	494	371	324	326	514
65°	321	261	165	107	99	322
75°	141	99	34	8	5	152
85°	21	10	3	3	3	28
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°	1836.2	1836.2	1836.2	1836.2	1836.2	1836.2	1836.2	1836.2	1836.2
2.5°	1885.7	1875.3	1864.9	1846.6	1825.7	1804.8	1791.7	1781.3	1776.1
5°	1938.0	1925.0	1901.5	1862.3	1823.1	1786.6	1757.8	1739.5	1731.7
7.5°	1979.9	1961.6	1922.3	1867.6	1807.4	1750.0	1713.4	1687.3	1676.8
10°	1995.5	1974.6	1922.3	1849.3	1773.4	1703.0	1650.7	1624.7	1611.5
12.5°	2013.8	1990.3	1925.0	1833.6	1739.5	1656.0	1595.9	1561.9	1548.8
15°	2032.1	2000.8	1922.3	1810.0	1697.7	1601.1	1535.8	1501.8	1486.2
17.5°	2032.1	1995.5	1901.5	1770.9	1642.9	1541.1	1467.9	1428.8	1415.6
20°	1995.5	1953.7	1851.9	1708.2	1572.4	1462.6	1392.2	1353.0	1337.3
22.5°	1938.0	1891.0	1781.3	1632.4	1488.8	1381.7	1311.2	1274.6	1259.0
25°	1862.3	1815.3	1700.4	1546.2	1402.6	1295.5	1230.2	1196.3	1180.6
27.5°	1773.4	1721.3	1606.4	1452.2	1311.2	1209.3	1149.3	1117.8	1104.8
30°	1663.8	1614.1	1501.8	1350.3	1214.6	1120.5	1065.7	1037.0	1026.5
32.5°	1535.8	1494.1	1384.3	1243.3	1115.3	1029.1	979.5	955.9	945.5
35°	1402.6	1363.5	1266.7	1136.1	1021.2	940.2	893.2	877.6	872.4
37.5°	1277.2	1243.3	1149.3	1029.1	924.6	854.1	812.3	801.9	796.6
40°	1146.7	1123.1	1037.0	927.2	830.6	767.9	733.9	726.2	726.2
42.5°	1029.1	1003.0	927.2	827.9	741.8	679.1	655.6	647.7	650.3
45°	922.1	895.9	825.3	733.9	650.3	598.1	579.8	579.8	579.8
47.5°	822.8	799.2	733.9	639.9	572.0	530.3	512.0	512.0	514.5
50°	731.3	715.6	642.6	561.6	501.5	462.3	449.2	446.7	451.8
52.5°	645.2	626.9	561.6	488.4	431.0	399.7	386.5	383.9	386.5
55°	572.0	551.1	493.7	423.1	370.9	339.5	323.9	321.2	326.5
57.5°	501.5	485.8	425.7	363.1	313.4	282.1	269.1	263.8	266.4
60°	436.2	420.5	365.7	305.6	261.2	229.9	211.6	206.3	208.9
62.5°	376.1	363.1	310.8	253.3	208.9	180.2	161.9	148.9	154.1
65°	321.2	308.2	261.2	203.8	164.6	133.2	107.0	96.6	99.3
67.5°	274.2	258.6	214.2	161.9	122.7	88.8	60.0	54.9	54.9
70°	227.2	211.6	172.3	125.3	86.2	47.0	26.1	26.1	26.1
72.5°	182.9	169.8	133.2	94.0	54.9	20.9	10.4	10.4	10.4
75°	141.0	130.6	99.3	65.3	34.0	10.4	7.9	5.3	5.3
77.5°	104.5	94.0	70.6	44.4	20.9	5.3	5.3	5.3	5.3
80°	70.6	62.7	47.0	26.1	10.4	2.6	2.6	2.6	2.6
82.5°	41.7	36.6	26.1	13.0	5.3	2.6	2.6	2.6	2.6
85°	20.9	15.7	10.4	5.3	2.6	2.6	2.6	2.6	2.6
87.5°	5.3	2.6	2.6	2.6	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)