

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: P580792

Luminaire Tested: **HC445D010-HM44560930-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580792
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-HM44560930-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3047.0 lumens
Efficiency: N/A
Efficacy: 69.2 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

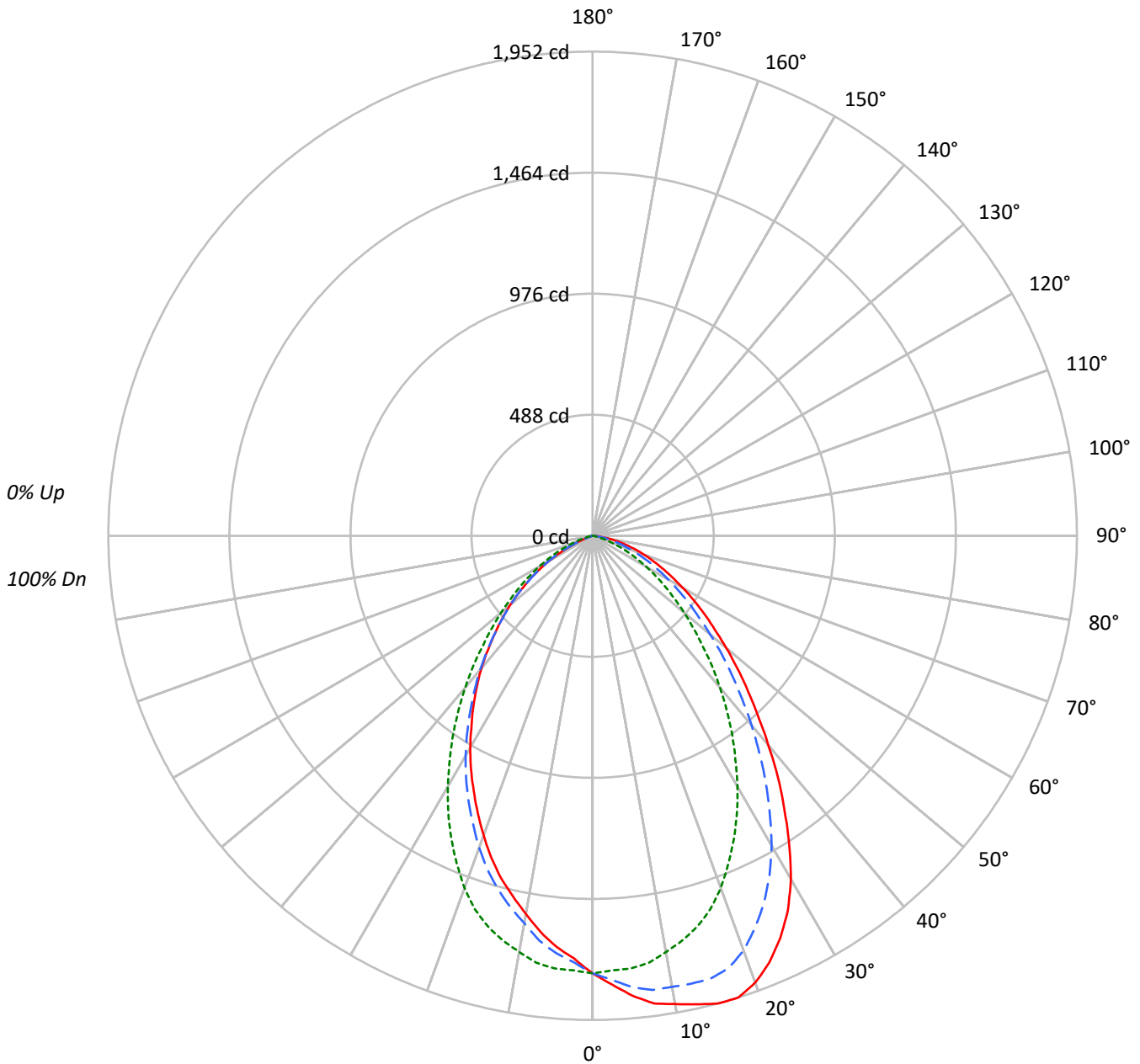
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	217582	217582	217582
5°	230522	216853	205994
10°	240101	213398	193910
15°	249290	208286	182313
20°	251629	198271	168645
25°	243491	183390	154361
30°	227656	166184	140448
35°	202903	147731	126199
40°	177376	128491	112309
45°	154516	108988	97179
50°	134823	92453	83300
55°	118190	76621	67460
60°	103388	61895	49511
65°	90097	46143	27844
70°	78727	29861	9052
75°	64575	15584	2383
80°	48160	7103	1776
85°	28446	3538	3538



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.5	5.5
10°-20°	465.9	15.3
20°-30°	644.2	21.1
30°-40°	647.8	21.3
40°-50°	522.7	17.2
50°-60°	353.5	11.6
60°-70°	179.9	5.9
70°-80°	57.6	1.9
80°-90°	8.8	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°	1276.7	41.9
0°-40°	1924.5	63.2
0°-60°	2800.7	91.9
0°-90°	3047.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3047.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1764	1764	1764	1764	1764	
5°	1862	1827	1751	1689	1664	179
15°	1952	1847	1631	1475	1428	550
25°	1789	1634	1348	1182	1134	819
35°	1348	1217	981	858	838	842
45°	886	793	625	557	557	686
55°	550	474	356	311	314	494
65°	309	251	158	103	95	309
75°	136	95	33	8	5	146
85°	20	10	2	2	2	27
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°	1764.0	1764.0	1764.0	1764.0	1764.0	1764.0	1764.0	1764.0	1764.0
2.5°	1811.7	1801.7	1791.6	1774.1	1754.0	1733.9	1721.4	1711.3	1706.3
5°	1861.8	1849.3	1826.7	1789.1	1751.4	1716.3	1688.7	1671.2	1663.7
7.5°	1902.0	1884.5	1846.8	1794.1	1736.4	1681.2	1646.1	1621.0	1611.0
10°	1917.0	1897.0	1846.8	1776.6	1703.8	1636.1	1585.8	1560.8	1548.2
12.5°	1934.7	1912.1	1849.3	1761.5	1671.2	1590.9	1533.2	1500.6	1488.0
15°	1952.2	1922.1	1846.8	1738.9	1631.1	1538.1	1475.4	1442.8	1427.7
17.5°	1952.2	1917.0	1826.7	1701.3	1578.3	1480.5	1410.2	1372.5	1360.0
20°	1917.0	1876.9	1779.0	1641.0	1510.5	1405.2	1337.4	1299.8	1284.8
22.5°	1861.8	1816.7	1711.3	1568.3	1430.3	1327.4	1259.7	1224.6	1209.5
25°	1789.1	1743.9	1633.5	1485.5	1347.5	1244.6	1181.9	1149.3	1134.2
27.5°	1703.8	1653.6	1543.2	1395.2	1259.7	1161.8	1104.0	1074.0	1061.4
30°	1598.4	1550.7	1442.8	1297.3	1166.8	1076.4	1023.8	996.2	986.1
32.5°	1475.4	1435.3	1329.9	1194.4	1071.5	988.7	941.0	918.4	908.4
35°	1347.5	1309.8	1217.0	1091.5	981.1	903.3	858.2	843.1	838.1
37.5°	1227.0	1194.4	1104.0	988.7	888.3	820.5	780.4	770.4	765.3
40°	1101.6	1079.0	996.2	890.8	798.0	737.7	705.1	697.5	697.5
42.5°	988.7	963.6	890.8	795.4	712.6	652.4	629.8	622.3	624.8
45°	885.8	860.7	792.9	705.1	624.8	574.6	557.1	557.1	557.1
47.5°	790.4	767.8	705.1	614.7	549.6	509.4	491.8	491.8	494.4
50°	702.6	687.6	617.3	539.5	481.8	444.1	431.6	429.1	434.1
52.5°	619.8	602.2	539.5	469.2	414.0	383.9	371.4	368.9	371.4
55°	549.6	529.5	474.3	406.5	356.3	326.2	311.1	308.7	313.7
57.5°	481.8	466.8	409.0	348.8	301.1	271.0	258.5	253.5	255.9
60°	419.1	404.0	351.3	293.6	250.9	220.8	203.3	198.3	200.7
62.5°	361.3	348.8	298.6	243.4	200.7	173.1	155.6	143.1	148.0
65°	308.7	296.1	250.9	195.7	158.1	128.0	102.9	92.8	95.4
67.5°	263.4	248.4	205.8	155.6	117.9	85.3	57.7	52.7	52.7
70°	218.3	203.3	165.6	120.4	82.8	45.2	25.1	25.1	25.1
72.5°	175.7	163.1	128.0	90.3	52.7	20.1	10.0	10.0	10.0
75°	135.5	125.4	95.4	62.7	32.7	10.0	7.5	5.0	5.0
77.5°	100.4	90.3	67.8	42.6	20.1	5.0	5.0	5.0	5.0
80°	67.8	60.3	45.2	25.1	10.0	2.5	2.5	2.5	2.5
82.5°	40.2	35.1	25.1	12.6	5.0	2.5	2.5	2.5	2.5
85°	20.1	15.0	10.0	5.0	2.5	2.5	2.5	2.5	2.5
87.5°	5.0	2.5	2.5	2.5	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)