

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: P581206

Luminaire Tested: **HC455D010-HM44560927-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581206
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: HC455D010-HM44560927-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3106.4 lumens
Efficiency: N/A
Efficacy: 59.7 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

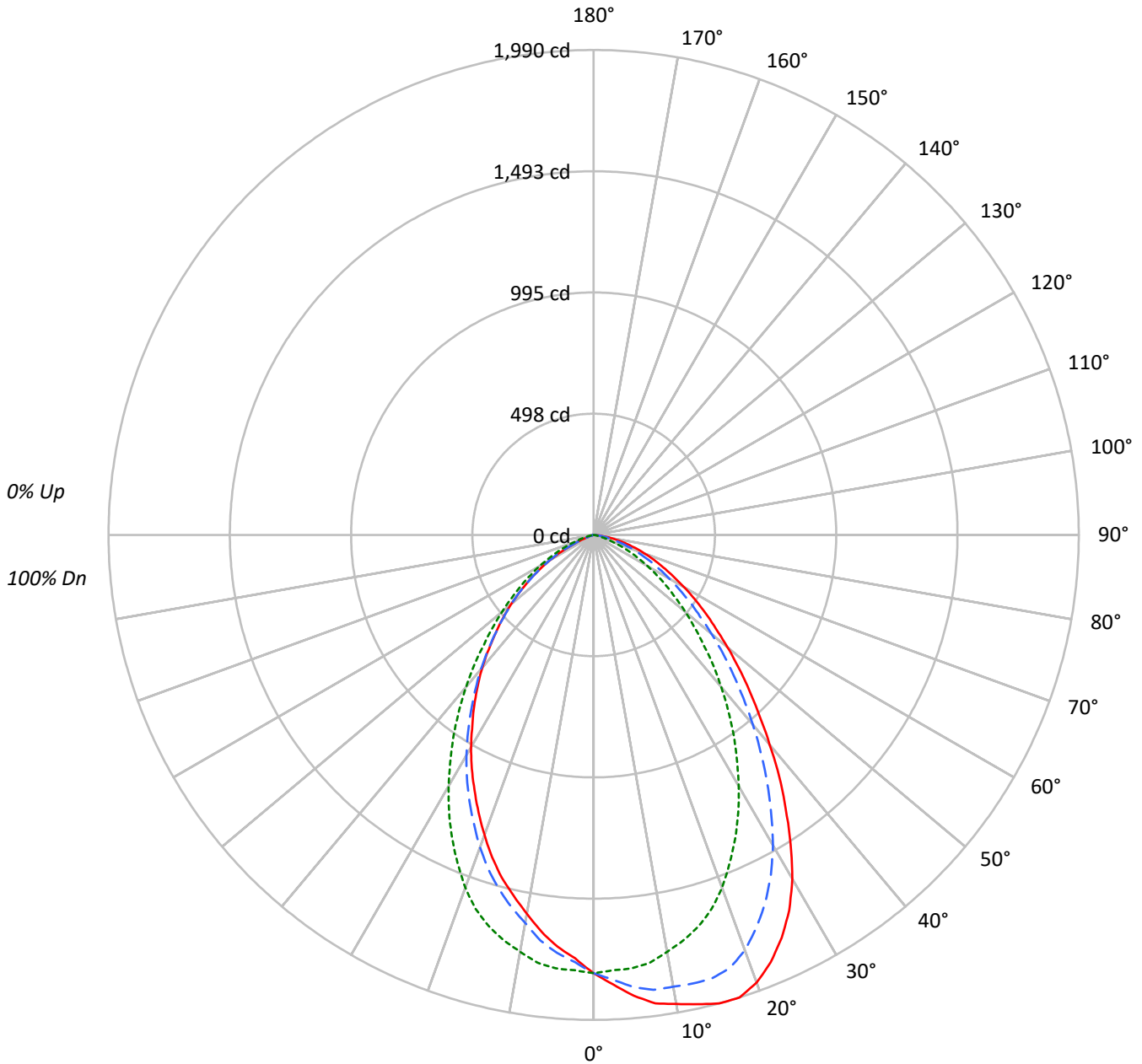
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	221825	221825	221825
5°	235017	221087	209993
10°	244798	217557	197692
15°	254142	212334	185875
20°	256551	202143	171913
25°	248241	186956	157369
30°	232099	169431	143196
35°	206848	150607	128653
40°	180837	130987	114499
45°	157517	111116	99063
50°	137452	94257	84931
55°	120469	78126	68750
60°	105387	63104	50473
65°	91849	47048	28369
70°	80242	30438	9196
75°	65862	15870	2431
80°	49083	7245	1847
85°	29012	3680	3680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.7	5.5
10°-20°	475.0	15.3
20°-30°	656.8	21.1
30°-40°	660.4	21.3
40°-50°	532.9	17.2
50°-60°	360.3	11.6
60°-70°	183.4	5.9
70°-80°	58.7	1.9
80°-90°	9.0	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°	1301.6	41.9
0°-40°	1962.0	63.2
0°-60°	2855.3	91.9
0°-90°	3106.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3106.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1798	1798	1798	1798	1798	
5°	1898	1862	1786	1722	1696	183
15°	1990	1883	1663	1504	1456	561
25°	1824	1665	1374	1205	1156	835
35°	1374	1241	1000	875	854	858
45°	903	808	637	568	568	700
55°	560	484	363	317	320	503
65°	315	256	161	105	97	316
75°	138	97	33	8	5	149
85°	20	10	3	3	3	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°	1798.4	1798.4	1798.4	1798.4	1798.4	1798.4	1798.4	1798.4	1798.4
2.5°	1847.0	1836.8	1826.6	1808.7	1788.2	1767.7	1754.9	1744.6	1739.6
5°	1898.1	1885.4	1862.3	1824.0	1785.6	1749.8	1721.6	1703.7	1696.0
7.5°	1939.0	1921.2	1882.8	1829.1	1770.3	1713.9	1678.2	1652.6	1642.4
10°	1954.5	1934.0	1882.8	1811.1	1737.0	1667.9	1616.7	1591.2	1578.4
12.5°	1972.4	1949.3	1885.4	1795.8	1703.7	1621.9	1563.1	1529.8	1517.0
15°	1990.2	1959.5	1882.8	1772.8	1662.8	1568.1	1504.2	1470.9	1455.6
17.5°	1990.2	1954.5	1862.3	1734.4	1609.1	1509.3	1437.6	1399.3	1386.6
20°	1954.5	1913.5	1813.7	1673.0	1540.0	1432.6	1363.5	1325.1	1309.7
22.5°	1898.1	1852.1	1744.6	1598.9	1458.1	1353.3	1284.2	1248.4	1233.0
25°	1824.0	1778.0	1665.3	1514.5	1373.7	1268.9	1204.9	1171.7	1156.3
27.5°	1737.0	1685.8	1573.3	1422.3	1284.2	1184.4	1125.6	1094.9	1082.1
30°	1629.6	1581.0	1470.9	1322.6	1189.6	1097.4	1043.8	1015.5	1005.4
32.5°	1504.2	1463.3	1355.9	1217.7	1092.4	1007.9	959.3	936.3	926.1
35°	1373.7	1335.4	1240.8	1112.9	1000.2	920.9	874.9	859.5	854.4
37.5°	1250.9	1217.7	1125.6	1007.9	905.6	836.6	795.6	785.4	780.2
40°	1123.1	1100.0	1015.5	908.1	813.5	752.1	718.9	711.1	711.1
42.5°	1007.9	982.4	908.1	810.9	726.5	665.1	642.2	634.4	637.0
45°	903.0	877.5	808.4	718.9	637.0	585.8	567.9	567.9	567.9
47.5°	805.8	782.8	718.9	626.7	560.2	519.3	501.4	501.4	504.0
50°	716.3	701.0	629.3	550.0	491.2	452.8	440.0	437.4	442.6
52.5°	631.9	613.9	550.0	478.4	422.1	391.4	378.6	376.1	378.6
55°	560.2	539.8	483.5	414.4	363.3	332.6	317.2	314.7	319.7
57.5°	491.2	475.8	416.9	355.6	307.0	276.3	263.5	258.4	260.9
60°	427.2	411.9	358.1	299.2	255.8	225.1	207.2	202.0	204.6
62.5°	368.3	355.6	304.4	248.2	204.6	176.5	158.6	145.8	151.0
65°	314.7	301.8	255.8	199.6	161.2	130.5	104.8	94.6	97.2
67.5°	268.7	253.2	209.8	158.6	120.3	87.0	58.8	53.8	53.8
70°	222.5	207.2	168.9	122.7	84.4	46.0	25.5	25.5	25.5
72.5°	179.1	166.3	130.5	92.1	53.8	20.5	10.2	10.2	10.2
75°	138.2	127.9	97.2	63.9	33.3	10.2	7.6	5.1	5.1
77.5°	102.4	92.1	69.1	43.5	20.5	5.1	5.1	5.1	5.1
80°	69.1	61.4	46.0	25.5	10.2	2.6	2.6	2.6	2.6
82.5°	40.9	35.8	25.5	12.8	5.1	2.6	2.6	2.6	2.6
85°	20.5	15.3	10.2	5.1	2.6	2.6	2.6	2.6	2.6
87.5°	5.1	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)