

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: P580667

Luminaire Tested: **HC440D010-HM43040935-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580667
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC440D010-HM43040935-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3689.4 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

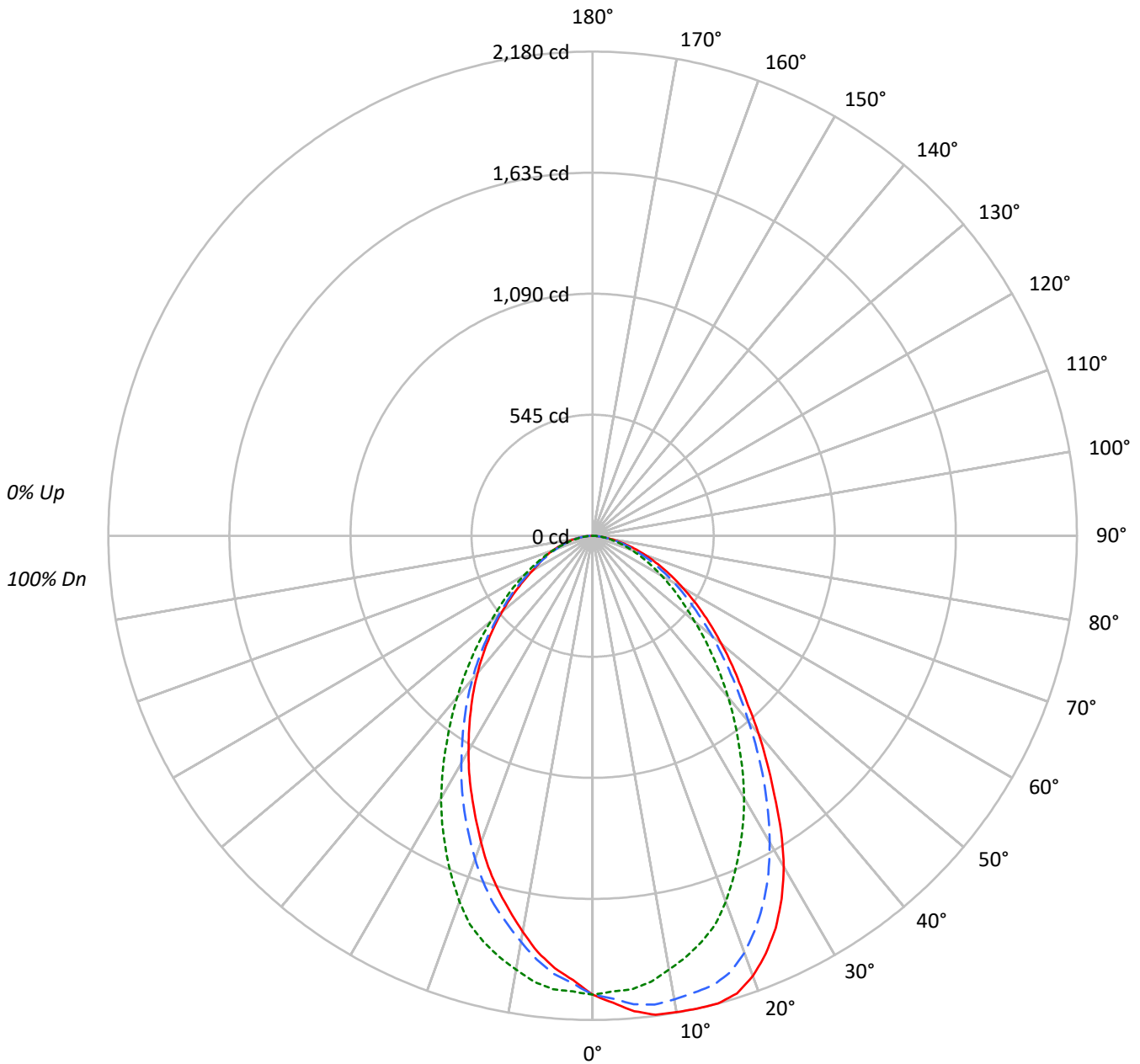
Input Watts (W): 41
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				100				
1	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76				
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38				
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35				
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	254832	254832	254832
5°	266033	253701	241950
10°	272766	248405	226800
15°	278405	241781	210432
20°	276923	230036	192705
25°	265294	212692	175306
30°	245089	194214	158892
35°	214829	172742	143831
40°	187069	152627	129538
45°	162802	133130	115739
50°	145051	114732	102144
55°	129630	100878	88320
60°	115723	88143	76154
65°	102852	77314	72381
70°	90268	66610	67512
75°	76442	56760	62574
80°	58672	48302	57039
85°	34390	37928	48259



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.7	5.2
10°-20°	534.2	14.5
20°-30°	729.8	19.8
30°-40°	732.8	19.9
40°-50°	606.2	16.4
50°-60°	439.3	11.9
60°-70°	278.3	7.5
70°-80°	140.7	3.8
80°-90°	34.4	0.9
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°	1457.6	39.5
0°-40°	2190.4	59.4
0°-60°	3236.0	87.7
0°-90°	3689.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3689.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2066	2066	2066	2066	2066	
5°	2149	2117	2049	1981	1954	206
15°	2180	2095	1893	1718	1648	613
25°	1949	1820	1563	1366	1288	891
35°	1427	1342	1147	1006	955	894
45°	933	880	763	688	664	726
55°	603	549	469	428	411	542
65°	352	314	265	238	248	351
75°	160	139	119	124	131	171
85°	24	24	27	32	34	34
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°	2066.0	2066.0	2066.0	2066.0	2066.0	2066.0	2066.0	2066.0	2066.0
2.5°	2104.8	2097.5	2085.4	2070.8	2053.8	2034.4	2017.4	2007.6	2002.8
5°	2148.6	2138.9	2117.0	2085.4	2049.0	2012.5	1980.9	1961.4	1954.1
7.5°	2175.3	2160.7	2129.1	2080.6	2024.6	1971.2	1925.0	1898.3	1890.9
10°	2177.8	2160.7	2119.5	2053.8	1983.3	1912.9	1856.9	1818.0	1810.8
12.5°	2180.2	2158.3	2107.3	2029.5	1942.0	1854.5	1786.4	1740.2	1728.1
15°	2180.2	2158.3	2095.1	2002.8	1893.4	1793.7	1718.4	1664.9	1647.9
17.5°	2160.7	2136.4	2061.1	1954.1	1835.1	1723.2	1635.8	1579.8	1562.8
20°	2109.7	2082.9	1997.8	1881.3	1752.5	1635.8	1548.2	1489.9	1468.1
22.5°	2036.7	2005.2	1915.2	1788.9	1660.1	1540.9	1455.8	1395.1	1375.7
25°	1949.3	1917.7	1820.5	1696.5	1562.8	1451.0	1365.9	1310.1	1288.1
27.5°	1842.4	1808.3	1713.6	1589.6	1465.6	1353.8	1276.0	1225.0	1203.2
30°	1720.8	1684.4	1594.4	1475.3	1363.6	1256.6	1181.2	1139.9	1115.6
32.5°	1579.8	1548.2	1468.1	1361.1	1256.6	1154.5	1091.3	1054.9	1035.4
35°	1426.7	1409.7	1341.6	1249.2	1147.2	1062.1	1006.2	972.2	955.2
37.5°	1290.6	1273.6	1215.3	1137.5	1047.6	969.8	923.6	894.4	879.9
40°	1161.8	1147.2	1091.3	1025.7	947.9	879.9	841.0	819.1	804.5
42.5°	1035.4	1028.1	981.9	921.1	853.1	794.8	763.2	746.1	734.0
45°	933.3	923.6	879.9	821.5	763.2	714.5	687.8	675.7	663.5
47.5°	843.4	831.2	785.0	734.0	680.6	636.8	612.5	600.3	595.5
50°	755.9	743.8	702.4	651.4	597.9	566.3	546.8	534.7	532.3
52.5°	678.1	666.0	619.8	571.1	529.9	503.1	486.1	474.0	469.1
55°	602.8	588.2	549.3	503.1	469.1	444.8	427.8	415.7	410.7
57.5°	534.7	520.1	486.1	442.3	410.7	388.9	374.3	362.2	357.3
60°	469.1	456.9	425.3	384.1	357.3	337.9	323.3	313.5	308.7
62.5°	408.4	398.6	367.0	330.6	308.7	291.7	279.5	269.8	274.6
65°	352.4	342.7	313.5	281.9	264.9	248.0	238.2	238.2	248.0
67.5°	299.0	289.2	264.9	238.2	223.6	211.4	204.1	211.4	218.7
70°	250.3	240.7	218.7	196.8	184.7	175.0	175.0	182.3	187.2
72.5°	204.1	194.5	177.5	160.4	150.7	143.4	150.7	155.6	160.4
75°	160.4	153.1	138.6	126.3	119.1	116.7	124.0	128.8	131.3
77.5°	119.1	114.2	104.5	94.8	89.9	92.4	99.7	102.1	104.5
80°	82.6	80.3	72.9	68.0	68.0	70.5	75.3	77.8	80.3
82.5°	51.0	51.0	46.2	43.7	46.2	51.0	53.5	55.9	55.9
85°	24.3	26.8	24.3	24.3	26.8	31.6	31.6	34.1	34.1
87.5°	7.3	7.3	9.8	9.8	12.1	12.1	12.1	12.1	14.6
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)