

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: P580449

Luminaire Tested: **HC435D010-HM43040835-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580449
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC435D010-HM43040835-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3615.4 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

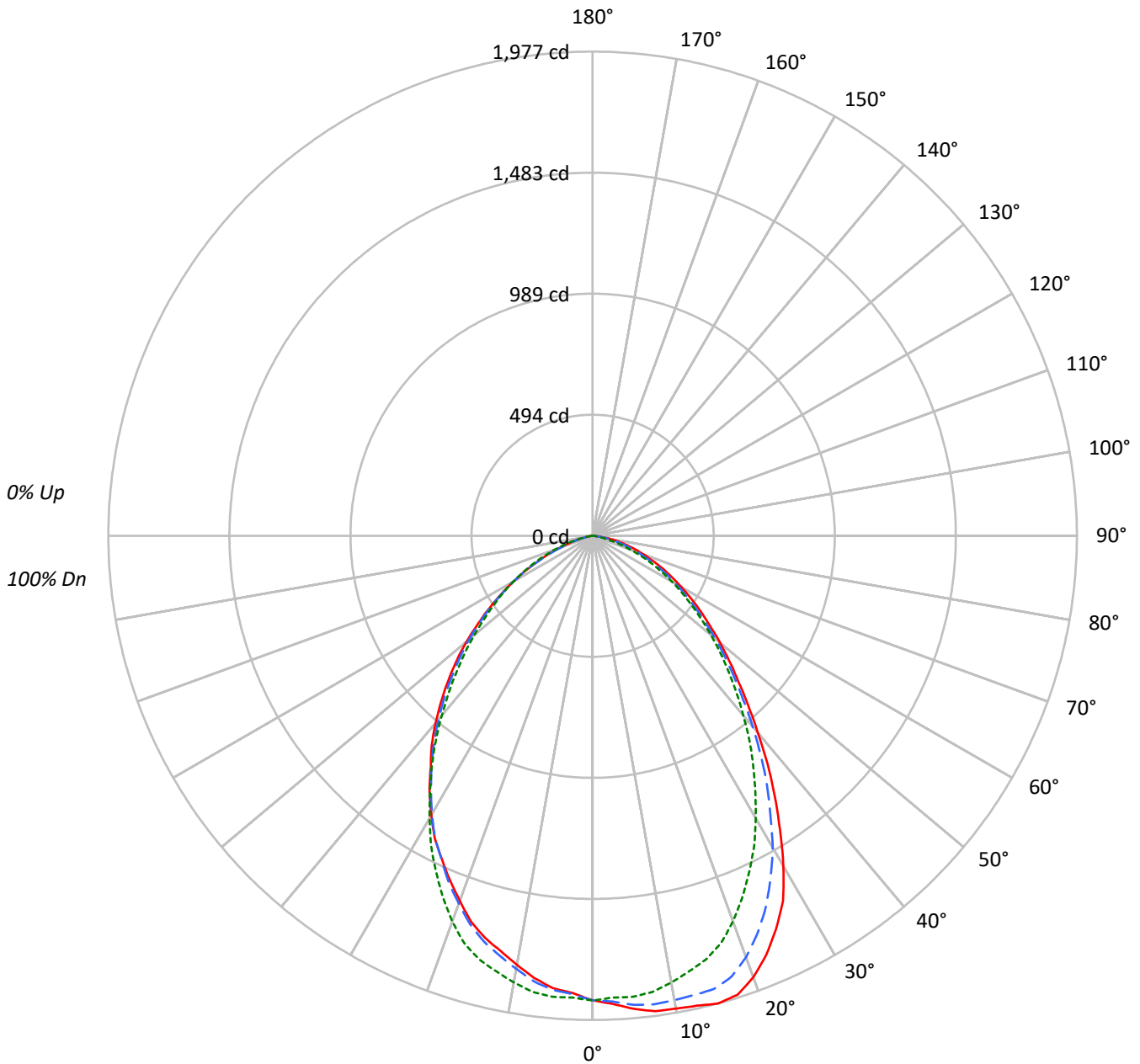
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67																			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47																			
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35																			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	233974	233974	233974
5°	240106	233989	229606
10°	245550	231960	222817
15°	252444	228679	216944
20°	251760	219903	208142
25°	241164	205887	198171
30°	221830	189613	187605
35°	195148	172080	173495
40°	168842	154028	160501
45°	146736	136881	145097
50°	130218	120719	128874
55°	115545	105889	110469
60°	102895	91843	91843
65°	91469	76351	71506
70°	79052	57810	50994
75°	66243	38173	31454
80°	50220	18468	16764
85°	26748	6652	6652



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.6	5.0
10°-20°	509.3	14.1
20°-30°	718.2	19.9
30°-40°	741.9	20.5
40°-50°	628.9	17.4
50°-60°	457.6	12.7
60°-70°	267.4	7.4
70°-80°	99.4	2.7
80°-90°	13.0	0.4
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°	1407.1	38.9
0°-40°	2149.0	59.4
0°-60°	3235.6	89.5
0°-90°	3615.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3615.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1897	1897	1897	1897	1897	
5°	1939	1923	1890	1862	1854	186
15°	1977	1916	1791	1715	1699	556
25°	1772	1673	1513	1458	1456	810
35°	1296	1239	1143	1145	1152	809
45°	841	818	785	813	832	655
55°	537	511	492	509	514	483
65°	313	288	262	245	245	311
75°	139	115	80	64	66	149
85°	19	12	5	5	5	26
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°	1896.9	1896.9	1896.9	1896.9	1896.9	1896.9	1896.9	1896.9	1896.9
2.5°	1913.3	1908.6	1903.8	1896.9	1887.4	1880.3	1873.3	1868.5	1868.5
5°	1939.2	1932.2	1922.7	1906.2	1889.8	1875.6	1861.5	1854.4	1854.4
7.5°	1958.1	1948.7	1929.8	1906.2	1878.0	1856.7	1835.6	1826.2	1821.4
10°	1960.5	1951.0	1925.1	1889.8	1852.0	1819.1	1795.5	1781.3	1779.0
12.5°	1965.2	1953.4	1920.4	1870.9	1821.4	1781.3	1755.5	1741.3	1736.6
15°	1976.9	1960.5	1915.6	1852.0	1790.8	1743.7	1715.3	1703.6	1698.9
17.5°	1965.2	1941.6	1887.4	1812.0	1743.7	1691.8	1663.5	1651.7	1651.7
20°	1918.0	1894.5	1830.9	1748.4	1675.3	1625.9	1597.5	1590.5	1585.7
22.5°	1852.0	1826.2	1757.8	1670.6	1597.5	1552.8	1533.9	1524.5	1522.1
25°	1772.0	1746.0	1673.0	1583.4	1512.8	1475.0	1458.5	1458.5	1456.1
27.5°	1682.4	1649.4	1574.0	1496.3	1427.9	1399.6	1392.5	1392.5	1394.9
30°	1557.5	1533.9	1470.3	1394.9	1331.3	1312.5	1312.5	1317.2	1317.2
32.5°	1423.2	1406.7	1350.1	1284.2	1234.7	1222.9	1227.6	1237.1	1239.4
35°	1296.0	1277.1	1239.4	1180.5	1142.8	1138.1	1145.1	1152.2	1152.2
37.5°	1171.1	1152.2	1126.4	1079.2	1050.9	1053.3	1062.7	1072.1	1079.2
40°	1048.6	1034.4	1015.5	977.9	956.6	966.1	977.9	987.3	996.8
42.5°	940.1	926.1	911.9	883.6	869.5	881.2	895.4	904.8	914.3
45°	841.2	831.8	817.6	794.1	784.7	796.5	812.9	822.3	831.8
47.5°	756.3	751.6	732.8	711.6	706.9	718.7	732.8	744.5	751.6
50°	678.6	671.6	655.1	633.8	629.1	648.0	657.4	664.5	671.6
52.5°	603.3	596.2	577.3	558.4	558.4	572.6	579.6	582.0	589.1
55°	537.3	530.2	511.3	497.1	492.4	504.2	508.9	508.9	513.7
57.5°	476.0	468.9	450.0	433.5	431.2	438.2	438.2	438.2	440.6
60°	417.1	410.0	391.2	377.0	372.3	374.6	372.3	369.9	372.3
62.5°	362.8	355.7	337.0	320.5	315.7	315.7	308.7	306.3	308.7
65°	313.4	301.6	287.5	271.0	261.6	254.5	245.0	245.0	245.0
67.5°	263.9	254.5	238.0	221.5	209.7	197.9	183.8	188.5	190.9
70°	219.2	212.1	193.2	176.7	160.3	146.1	134.3	139.0	141.4
72.5°	179.1	169.6	153.2	134.3	120.2	101.3	94.3	98.9	98.9
75°	139.0	129.6	115.4	96.7	80.1	63.6	63.6	66.0	66.0
77.5°	103.6	94.3	80.1	63.6	49.5	37.7	40.0	40.0	40.0
80°	70.7	63.6	51.8	37.7	26.0	21.2	21.2	21.2	23.6
82.5°	40.0	35.3	28.3	18.9	11.8	11.8	11.8	11.8	11.8
85°	18.9	14.2	11.8	7.1	4.7	4.7	4.7	4.7	4.7
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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)