

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: P581349

Luminaire Tested: **HC460D010-HM44560927-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581349
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: HC460D010-HM44560927-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4083.8 lumens
Efficiency: N/A
Efficacy: 74.3 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

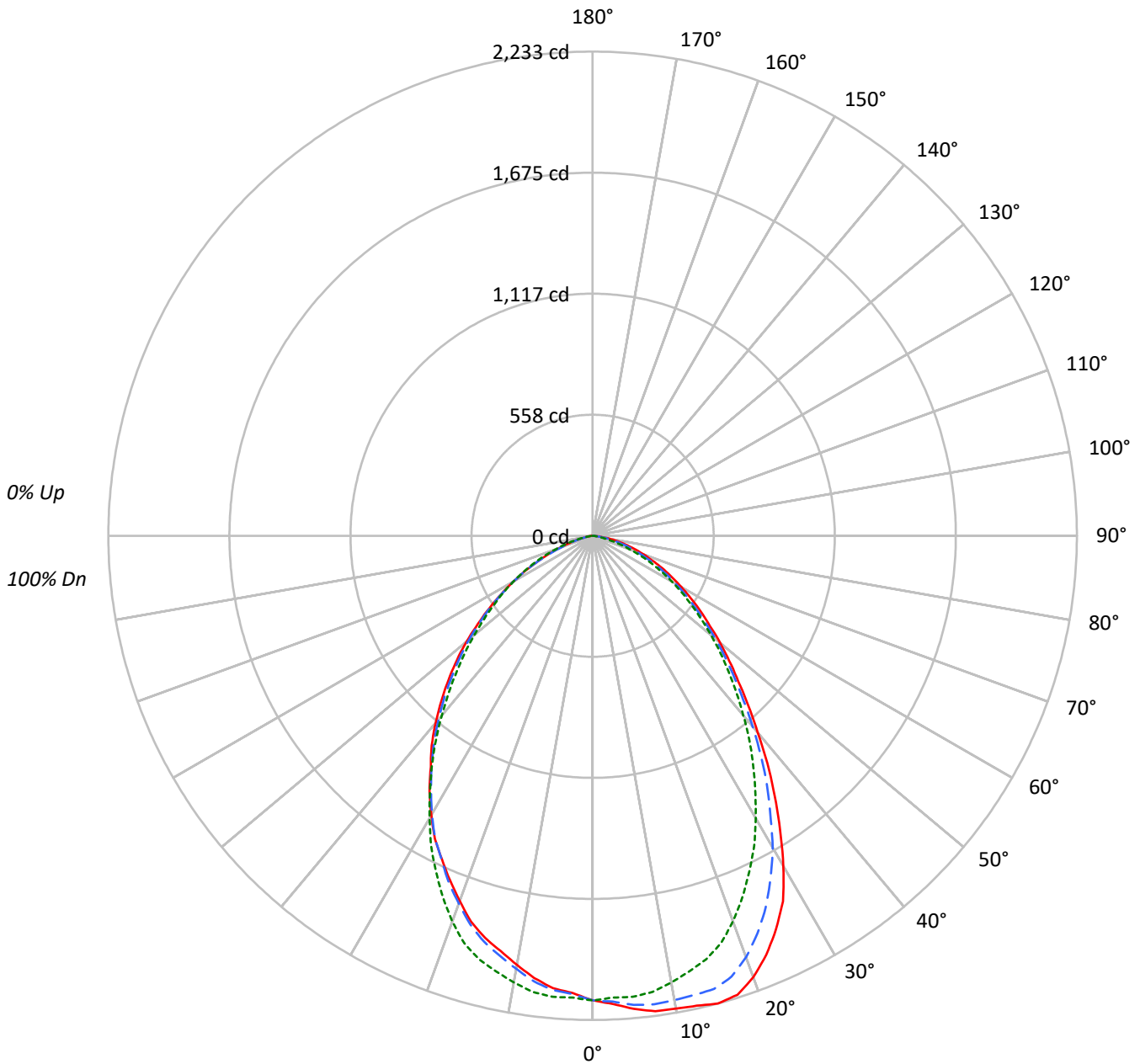
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88				
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77				77				
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67				67				
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59				59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				52				
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47				47				
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	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	41	37	47	41	37	46	41	37	35				35				
10	58	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°	264268	264268	264268
5°	271221	264287	259359
10°	277350	262020	251674
15°	285147	258292	245050
20°	284378	248386	235129
25°	272398	232549	223852
30°	250572	214168	211903
35°	220415	194380	195976
40°	190708	173994	181288
45°	165750	154604	163884
50°	147085	136358	145569
55°	130512	119609	124770
60°	116216	103734	103734
65°	103319	86216	80787
70°	89258	65240	57594
75°	74822	43130	35552
80°	56755	20812	18894
85°	30144	7501	7501



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.9	5.0
10°-20°	575.2	14.1
20°-30°	811.3	19.9
30°-40°	838.1	20.5
40°-50°	710.4	17.4
50°-60°	516.9	12.7
60°-70°	302.0	7.4
70°-80°	112.2	2.7
80°-90°	14.7	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°	1589.4	38.9
0°-40°	2427.5	59.4
0°-60°	3654.8	89.5
0°-90°	4083.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4083.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2142	2142	2142	2142	2142	
5°	2190	2172	2134	2103	2095	210
15°	2233	2164	2023	1938	1919	628
25°	2002	1890	1709	1648	1645	915
35°	1464	1400	1291	1294	1302	914
45°	950	924	886	918	940	739
55°	607	578	556	575	580	546
65°	354	325	295	277	277	351
75°	157	130	90	72	75	169
85°	21	13	5	5	5	30
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°	2142.5	2142.5	2142.5	2142.5	2142.5	2142.5	2142.5	2142.5	2142.5
2.5°	2161.1	2155.8	2150.5	2142.5	2131.9	2123.9	2115.9	2110.6	2110.6
5°	2190.5	2182.5	2171.9	2153.2	2134.5	2118.6	2102.6	2094.7	2094.7
7.5°	2211.8	2201.1	2179.9	2153.2	2121.2	2097.3	2073.4	2062.7	2057.4
10°	2214.4	2203.8	2174.4	2134.5	2092.0	2054.8	2028.1	2012.1	2009.4
12.5°	2219.7	2206.5	2169.1	2113.3	2057.4	2012.1	1982.9	1966.9	1961.6
15°	2233.0	2214.4	2163.8	2092.0	2022.7	1969.6	1937.6	1924.3	1919.0
17.5°	2219.7	2193.2	2131.9	2046.8	1969.6	1910.9	1879.0	1865.7	1865.7
20°	2166.5	2139.9	2068.1	1974.9	1892.3	1836.5	1804.6	1796.6	1791.3
22.5°	2092.0	2062.7	1985.5	1887.0	1804.6	1753.9	1732.7	1722.0	1719.4
25°	2001.5	1972.2	1889.7	1788.6	1708.7	1666.2	1647.6	1647.6	1644.8
27.5°	1900.3	1863.1	1778.0	1690.1	1612.9	1581.0	1573.0	1573.0	1575.6
30°	1759.3	1732.7	1660.8	1575.6	1503.7	1482.5	1482.5	1487.8	1487.8
32.5°	1607.6	1588.9	1525.1	1450.5	1394.7	1381.3	1386.7	1397.4	1400.0
35°	1463.8	1442.6	1400.0	1333.4	1290.9	1285.6	1293.5	1301.5	1301.5
37.5°	1322.8	1301.5	1272.3	1219.0	1187.1	1189.7	1200.3	1211.0	1219.0
40°	1184.4	1168.4	1147.2	1104.5	1080.6	1091.2	1104.5	1115.1	1125.9
42.5°	1062.0	1046.0	1030.0	998.1	982.1	995.5	1011.4	1022.1	1032.7
45°	950.2	939.5	923.6	897.0	886.3	899.6	918.2	928.9	939.5
47.5°	854.3	849.0	827.7	803.8	798.5	811.8	827.7	841.0	849.0
50°	766.5	758.6	739.9	715.9	710.6	732.0	742.6	750.6	758.6
52.5°	681.3	673.4	652.1	630.8	630.8	646.8	654.7	657.4	665.4
55°	606.9	598.9	577.5	561.6	556.2	569.5	574.9	574.9	580.2
57.5°	537.6	529.6	508.4	489.8	487.1	495.1	495.1	495.1	497.7
60°	471.1	463.2	441.8	425.8	420.5	423.2	420.5	417.8	420.5
62.5°	409.9	401.9	380.6	362.0	356.7	356.7	348.7	346.0	348.7
65°	354.0	340.7	324.8	306.0	295.4	287.4	276.8	276.8	276.8
67.5°	298.1	287.4	268.8	250.2	236.9	223.6	207.6	213.0	215.6
70°	247.5	239.6	218.3	199.7	180.9	165.0	151.7	157.0	159.7
72.5°	202.3	191.6	173.0	151.7	135.7	114.5	106.5	111.8	111.8
75°	157.0	146.4	130.4	109.1	90.5	71.9	71.9	74.6	74.6
77.5°	117.1	106.5	90.5	71.9	55.9	42.6	45.2	45.2	45.2
80°	79.9	71.9	58.5	42.6	29.3	23.9	23.9	23.9	26.6
82.5°	45.2	39.9	31.9	21.3	13.3	13.3	13.3	13.3	13.3
85°	21.3	16.0	13.3	8.0	5.3	5.3	5.3	5.3	5.3
87.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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)