

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: P581348

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581348
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC460D010-HM44560927-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4105.1 lumens
Efficiency: N/A
Efficacy: 74.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

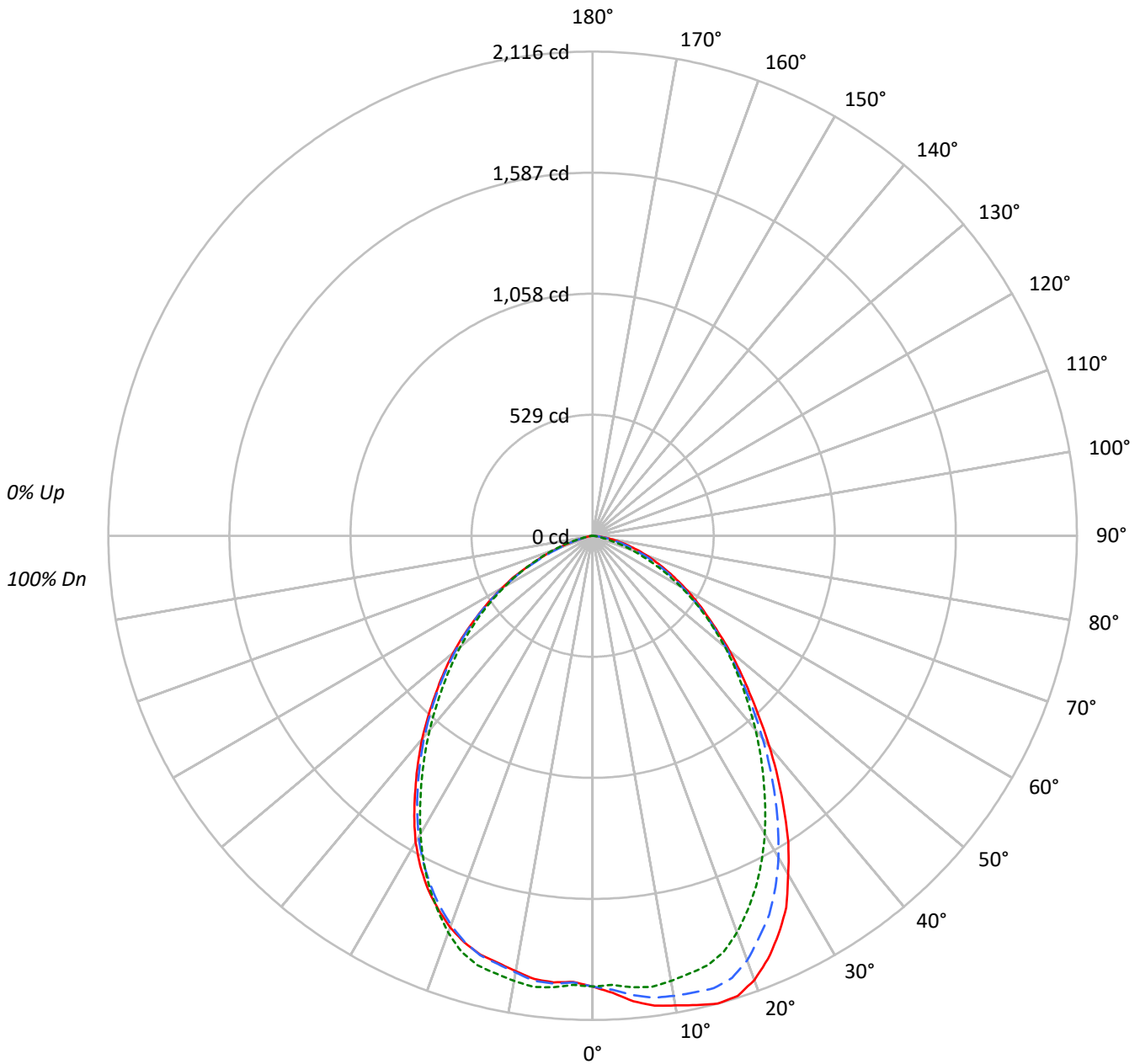
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	100
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88	88
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76	76	76	76
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67	67	67	67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58	58	58	58
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52	52	52	52
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46	46	46	46
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41	41	41	41
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37	37	37	37
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34	34	34	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31	31	31	31

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	242979	242979	242979
5°	252809	245219	242582
10°	261068	247391	242055
15°	270257	248153	242036
20°	271147	242152	239001
25°	261578	230058	231868
30°	243408	214225	220292
35°	219255	196006	203234
40°	193316	178326	186457
45°	169030	160674	168576
50°	149676	144571	152228
55°	131673	127673	132813
60°	117548	109038	112319
65°	103348	88551	87004
70°	90232	65276	59505
75°	74822	39365	31740
80°	56755	15130	9447
85°	26323	3821	3821



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.0	4.6
10°-20°	554.5	13.5
20°-30°	803.0	19.6
30°-40°	847.2	20.6
40°-50°	733.2	17.9
50°-60°	543.2	13.2
60°-70°	313.1	7.6
70°-80°	109.3	2.7
80°-90°	11.5	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°	1547.5	37.7
0°-40°	2394.7	58.3
0°-60°	3671.1	89.4
0°-90°	4105.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4105.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1970	1970	1970	1970	1970	
5°	2042	2015	1980	1965	1959	196
15°	2116	2047	1943	1898	1895	595
25°	1922	1826	1690	1680	1704	880
35°	1456	1390	1302	1331	1350	909
45°	969	942	921	956	966	752
55°	612	599	594	615	618	552
65°	354	333	303	288	298	354
75°	157	133	83	67	67	169
85°	19	11	3	3	3	29
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°	1969.9	1969.9	1969.9	1969.9	1969.9	1969.9	1969.9	1969.9	1969.9
2.5°	1999.2	1993.9	1985.8	1975.2	1964.6	1956.6	1953.9	1951.3	1951.3
5°	2041.8	2031.2	2015.2	1993.9	1980.5	1972.5	1964.6	1959.2	1959.2
7.5°	2071.1	2060.4	2036.5	2007.2	1988.6	1972.5	1961.9	1953.9	1953.9
10°	2084.4	2071.1	2041.8	2004.6	1975.2	1953.9	1938.0	1932.6	1932.6
12.5°	2100.3	2084.4	2044.5	1996.6	1959.2	1932.6	1916.7	1911.4	1911.4
15°	2116.4	2097.7	2047.1	1991.3	1943.3	1911.4	1898.1	1895.4	1895.4
17.5°	2108.3	2084.4	2025.8	1959.2	1906.0	1874.1	1860.7	1860.7	1863.5
20°	2065.7	2041.8	1975.2	1900.7	1844.8	1820.8	1810.2	1815.5	1820.8
22.5°	2001.9	1972.5	1900.7	1828.8	1770.3	1749.0	1749.0	1757.0	1765.0
25°	1922.0	1895.4	1826.1	1746.3	1690.4	1674.4	1679.8	1693.1	1703.7
27.5°	1831.5	1802.2	1730.4	1655.8	1600.0	1591.9	1605.3	1623.9	1629.2
30°	1709.0	1685.1	1623.9	1552.0	1504.1	1501.4	1520.1	1533.4	1546.7
32.5°	1591.9	1565.3	1506.8	1437.5	1402.9	1405.6	1426.9	1442.8	1450.8
35°	1456.1	1432.2	1389.6	1333.7	1301.7	1307.1	1331.0	1347.1	1349.7
37.5°	1328.3	1312.4	1269.8	1227.3	1203.2	1214.0	1235.2	1253.9	1253.9
40°	1200.6	1187.3	1155.3	1120.8	1107.5	1120.8	1142.0	1158.0	1158.0
42.5°	1078.1	1070.1	1043.5	1019.6	1011.6	1030.2	1048.8	1062.1	1059.5
45°	969.0	961.1	942.3	923.7	921.1	939.7	955.6	963.7	966.4
47.5°	870.5	865.2	849.2	835.8	835.8	854.6	867.9	875.8	878.5
50°	780.0	774.7	761.4	750.7	753.4	772.0	782.6	790.6	793.3
52.5°	689.4	686.8	676.1	662.8	670.8	684.1	697.4	702.7	705.5
55°	612.3	612.3	599.0	588.4	593.7	607.0	615.0	617.6	617.6
57.5°	543.0	540.4	524.4	513.8	516.4	529.7	535.1	537.7	537.7
60°	476.5	473.9	457.9	442.0	442.0	449.8	452.6	455.3	455.3
62.5°	412.6	409.9	391.3	378.0	372.7	370.0	370.0	375.4	386.0
65°	354.1	351.4	332.8	311.4	303.4	295.5	287.5	292.8	298.1
67.5°	300.8	295.5	276.8	258.2	239.6	226.3	213.0	221.0	231.6
70°	250.2	244.9	223.6	202.4	181.0	159.7	149.1	159.7	165.0
72.5°	202.4	196.9	175.7	154.4	127.8	106.5	103.8	106.5	109.2
75°	157.0	154.4	133.1	109.2	82.6	66.6	66.6	66.6	66.6
77.5°	117.1	111.8	90.5	69.3	47.9	37.2	34.6	34.6	34.6
80°	79.9	74.6	55.9	39.9	21.3	16.0	16.0	13.3	13.3
82.5°	45.2	42.6	29.3	16.0	8.0	5.3	5.3	5.3	5.3
85°	18.6	16.0	10.6	5.3	2.7	2.7	2.7	2.7	2.7
87.5°	2.7	2.7	2.7	0.0	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)