

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: P581350

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581350
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: HC460D010-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: 3231.8 lumens
Efficiency: N/A
Efficacy: 58.8 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

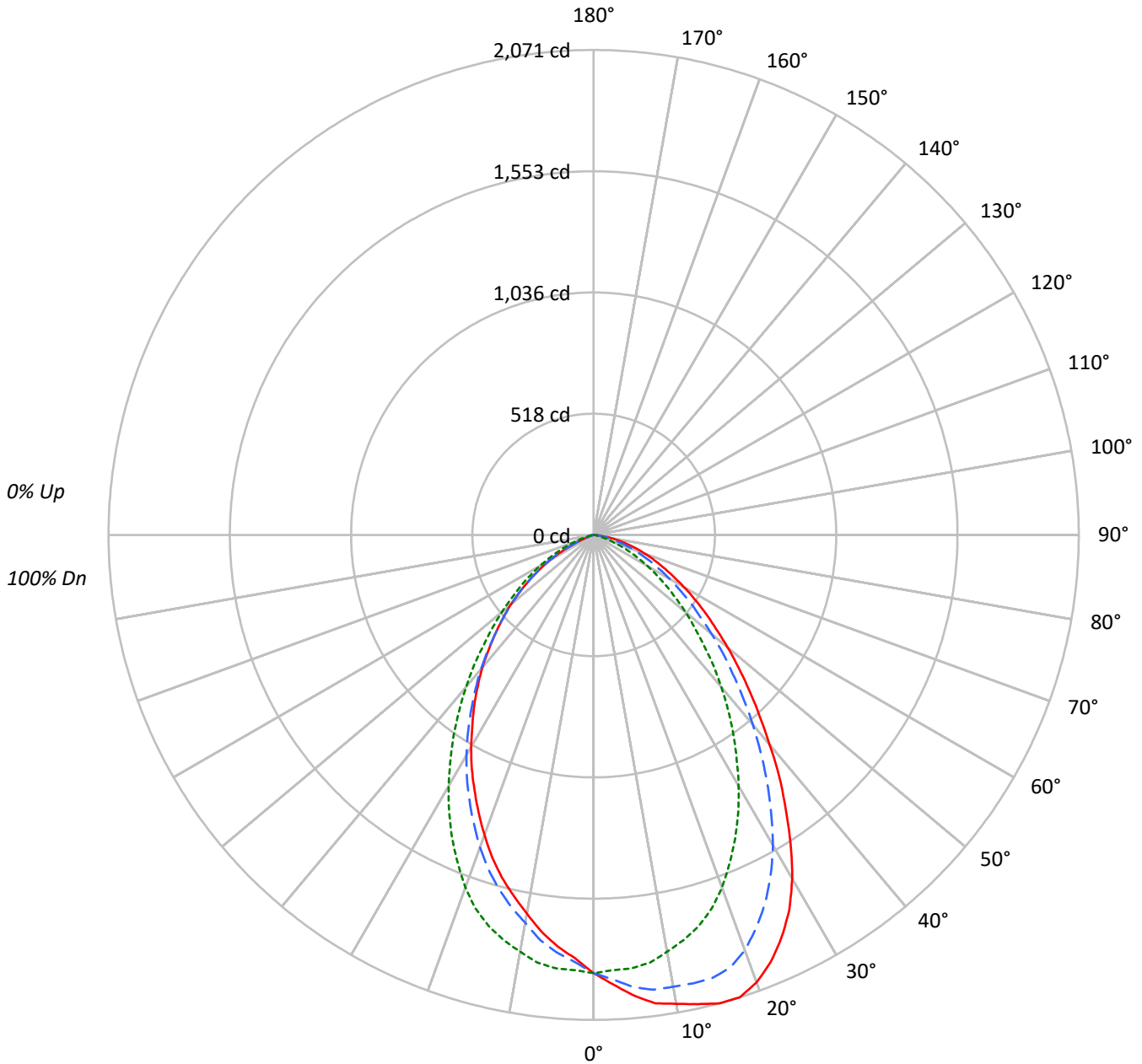
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89			89
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78			78
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69			69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61			61
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55			55
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49			49
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44			44
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40			40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37			37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34			34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	230780	230780	230780
5°	244513	230014	218475
10°	254668	226349	205670
15°	264422	220915	193371
20°	266894	210307	178870
25°	258257	194510	163725
30°	241471	176268	148979
35°	215205	156706	133863
40°	188131	136268	119136
45°	163884	115599	103057
50°	143017	98057	88347
55°	125329	81266	71524
60°	109630	65645	52545
65°	95526	48916	29536
70°	83524	31700	9593
75°	68483	16489	2526
80°	51072	7529	1918
85°	30144	3821	3821



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.6	5.5
10°-20°	494.2	15.3
20°-30°	683.3	21.1
30°-40°	687.1	21.3
40°-50°	554.4	17.2
50°-60°	374.9	11.6
60°-70°	190.8	5.9
70°-80°	61.1	1.9
80°-90°	9.4	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°	1354.2	41.9
0°-40°	2041.2	63.2
0°-60°	2970.6	91.9
0°-90°	3231.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3231.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1871	1871	1871	1871	1871	
5°	1975	1938	1858	1791	1764	190
15°	2071	1959	1730	1565	1514	583
25°	1898	1733	1429	1254	1203	868
35°	1429	1291	1041	910	889	893
45°	940	841	663	591	591	728
55°	583	503	378	330	333	524
65°	327	266	168	109	101	328
75°	144	101	35	8	5	155
85°	21	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°	1871.0	1871.0	1871.0	1871.0	1871.0	1871.0	1871.0	1871.0	1871.0
2.5°	1921.5	1910.9	1900.3	1881.7	1860.4	1839.1	1825.8	1815.2	1809.8
5°	1974.8	1961.5	1937.6	1897.6	1857.7	1820.5	1791.2	1772.5	1764.5
7.5°	2017.4	1998.8	1958.9	1902.9	1841.8	1783.3	1745.9	1719.3	1708.7
10°	2033.3	2012.1	1958.9	1884.3	1807.2	1735.3	1682.1	1655.5	1642.1
12.5°	2052.1	2028.0	1961.5	1868.4	1772.5	1687.4	1626.1	1591.6	1578.3
15°	2070.7	2038.7	1958.9	1844.4	1730.0	1631.5	1565.0	1530.4	1514.3
17.5°	2070.7	2033.3	1937.6	1804.5	1674.1	1570.3	1495.7	1455.8	1442.5
20°	2033.3	1990.8	1887.0	1740.6	1602.2	1490.4	1418.6	1378.6	1362.7
22.5°	1974.8	1927.0	1815.2	1663.5	1517.0	1408.0	1336.1	1298.8	1282.9
25°	1897.6	1849.7	1732.6	1575.6	1429.2	1320.1	1253.5	1218.9	1203.0
27.5°	1807.2	1753.9	1636.8	1479.8	1336.1	1232.2	1171.1	1139.2	1125.9
30°	1695.4	1644.8	1530.4	1376.0	1237.6	1141.8	1085.9	1056.6	1046.0
32.5°	1565.0	1522.3	1410.6	1266.9	1136.5	1048.6	998.1	974.1	963.4
35°	1429.2	1389.2	1290.8	1157.8	1040.7	958.1	910.2	894.3	889.0
37.5°	1301.5	1266.9	1171.1	1048.6	942.2	870.4	827.7	817.1	811.7
40°	1168.4	1144.5	1056.6	944.8	846.3	782.5	747.9	739.9	739.9
42.5°	1048.6	1022.0	944.8	843.7	755.9	692.0	668.0	660.1	662.7
45°	939.5	912.9	841.0	747.9	662.7	609.5	590.8	590.8	590.8
47.5°	838.3	814.4	747.9	652.1	582.8	540.3	521.7	521.7	524.3
50°	745.3	729.3	654.7	572.2	511.0	471.1	457.7	455.1	460.4
52.5°	657.4	638.8	572.2	497.7	439.1	407.2	393.9	391.2	393.9
55°	582.8	561.6	503.0	431.1	377.9	346.0	330.1	327.3	332.6
57.5°	511.0	495.1	433.8	370.0	319.3	287.4	274.1	268.8	271.5
60°	444.4	428.5	372.6	311.4	266.1	234.2	215.6	210.3	213.0
62.5°	383.3	370.0	316.7	258.2	213.0	183.6	165.0	151.7	157.0
65°	327.3	314.0	266.1	207.6	167.6	135.7	109.1	98.5	101.2
67.5°	279.4	263.5	218.3	165.0	125.1	90.5	61.3	55.8	55.8
70°	231.6	215.6	175.6	127.8	87.9	47.9	26.6	26.6	26.6
72.5°	186.3	173.0	135.7	95.8	55.8	21.3	10.6	10.6	10.6
75°	143.7	133.1	101.2	66.6	34.6	10.6	8.0	5.3	5.3
77.5°	106.5	95.8	71.9	45.2	21.3	5.3	5.3	5.3	5.3
80°	71.9	63.8	47.9	26.6	10.6	2.7	2.7	2.7	2.7
82.5°	42.6	37.2	26.6	13.3	5.3	2.7	2.7	2.7	2.7
85°	21.3	16.0	10.6	5.3	2.7	2.7	2.7	2.7	2.7
87.5°	5.3	2.7	2.7	2.7	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)