

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P233218

Luminaire Tested: **FCB-24-4-LD4-60-35-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233218
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-24-4-LD4-60-35-UNV-EDD1-WDA12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

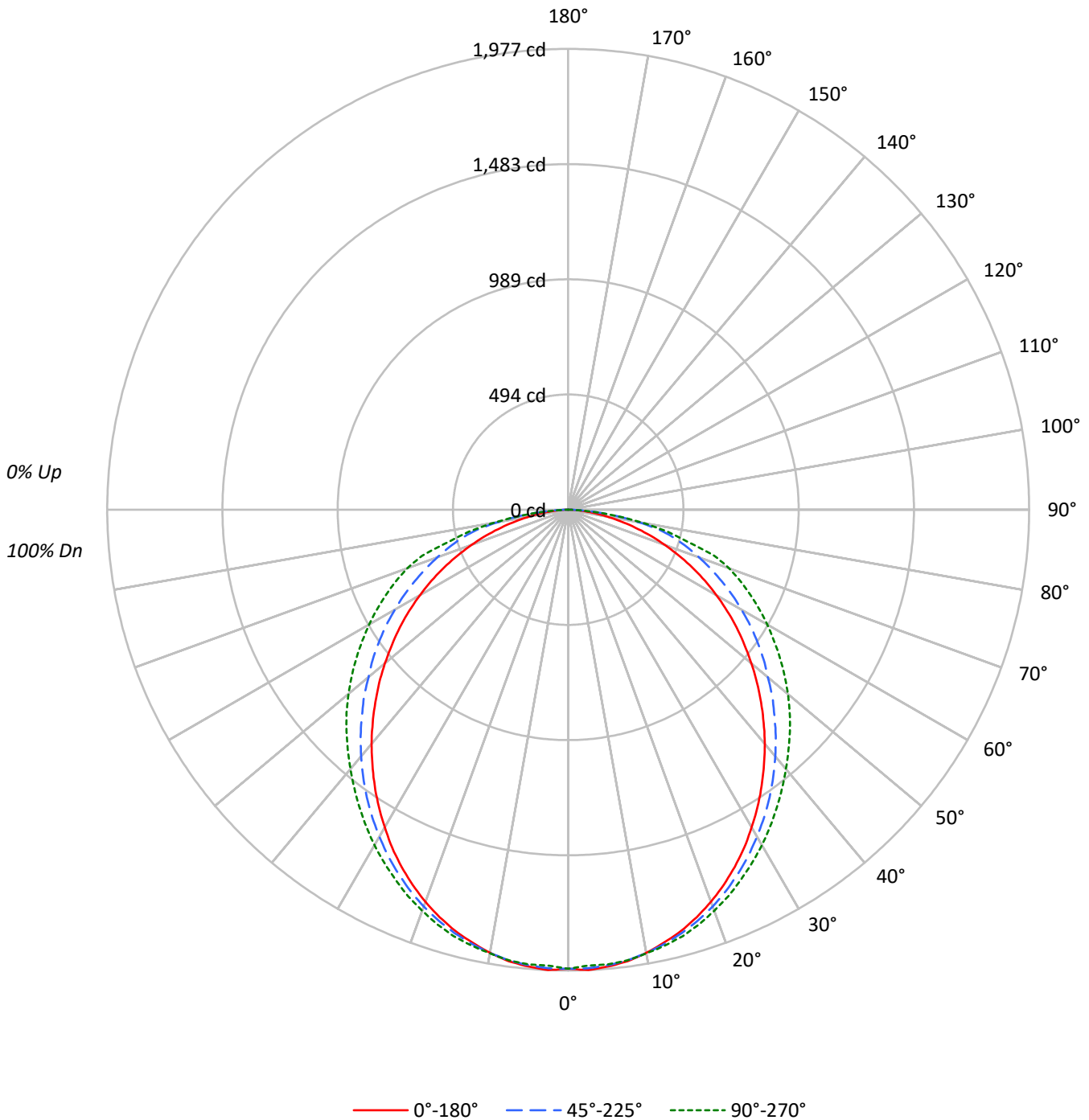
Lumens per Lamp: N/A
Luminaire Lumens: 5611.0 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 52.2
Input Voltage (V): 120
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2650	2650	2650
5°	2657	2649	2644
10°	2638	2638	2641
15°	2606	2620	2639
20°	2564	2594	2621
25°	2510	2558	2601
30°	2444	2516	2582
35°	2376	2474	2562
40°	2305	2426	2551
45°	2226	2380	2559
50°	2147	2340	2574
55°	2069	2325	2600
60°	1975	2311	2652
65°	1872	2312	2740
70°	1731	2351	2887
75°	1548	2457	2746
80°	1295	2352	2516
85°	979	1809	1720



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.1	3.3
10°-20°	529.6	9.4
20°-30°	791.7	14.1
30°-40°	939.2	16.7
40°-50°	966.7	17.2
50°-60°	886.8	15.8
60°-70°	717.1	12.8
70°-80°	465.4	8.3
80°-90°	128.3	2.3
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°	1507.4	26.9
0°-40°	2446.7	43.6
0°-60°	4300.2	76.6
0°-90°	5611.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5611.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1969	1969	1969	1969	1969	
5°	1967	1954	1962	1960	1958	187
15°	1871	1864	1881	1888	1894	527
25°	1691	1692	1723	1739	1752	778
35°	1447	1458	1506	1539	1560	905
45°	1170	1189	1251	1310	1345	903
55°	882	909	991	1072	1108	788
65°	588	622	726	822	861	581
75°	298	354	473	528	528	316
85°	63	108	117	113	111	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1969.2	1969.2	1969.2	1969.2	1969.2
2.5°	1976.9	1961.5	1969.2	1967.2	1957.6
5°	1967.2	1953.8	1961.5	1959.6	1957.6
7.5°	1953.8	1940.4	1950.0	1948.0	1950.0
10°	1930.7	1919.2	1930.7	1932.7	1932.7
12.5°	1901.9	1892.3	1907.7	1911.5	1915.4
15°	1871.2	1863.5	1880.8	1888.5	1894.2
17.5°	1832.8	1827.0	1848.1	1857.7	1865.4
20°	1790.5	1788.6	1811.6	1821.2	1830.8
22.5°	1742.5	1742.5	1769.4	1780.9	1794.3
25°	1690.6	1692.5	1723.3	1738.6	1752.1
27.5°	1634.9	1636.8	1673.3	1692.5	1707.9
30°	1573.4	1581.1	1619.5	1644.5	1661.8
32.5°	1511.9	1521.5	1563.8	1592.6	1611.8
35°	1446.6	1458.1	1506.2	1538.8	1560.0
37.5°	1379.4	1392.8	1444.7	1481.2	1506.2
40°	1312.1	1327.5	1381.3	1423.6	1452.4
42.5°	1241.1	1258.3	1317.9	1367.9	1398.6
45°	1170.0	1189.2	1250.7	1310.2	1344.8
47.5°	1098.9	1121.9	1187.3	1252.6	1289.1
50°	1025.9	1048.9	1118.1	1193.0	1229.5
52.5°	952.9	979.8	1056.6	1133.5	1170.0
55°	881.8	908.7	991.3	1072.0	1108.5
57.5°	808.8	835.7	926.0	1010.5	1047.0
60°	733.9	764.6	858.7	945.2	985.5
62.5°	660.9	693.5	793.4	885.6	924.1
65°	587.9	622.4	726.2	822.2	860.7
67.5°	512.9	553.3	660.9	758.9	799.2
70°	439.9	484.1	597.5	695.5	733.9
72.5°	368.9	416.9	534.1	634.0	657.0
75°	297.8	353.5	472.6	528.3	528.3
77.5°	230.5	292.0	403.4	424.6	436.1
80°	167.1	234.4	303.5	328.5	324.7
82.5°	111.4	178.7	217.1	217.1	211.3
85°	63.4	107.6	117.2	113.3	111.4
87.5°	26.9	40.3	36.5	28.8	25.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)