

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: P233210

Luminaire Tested: **FCB-24-4-LD4-40-35-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233210
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-LD4-40-35-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

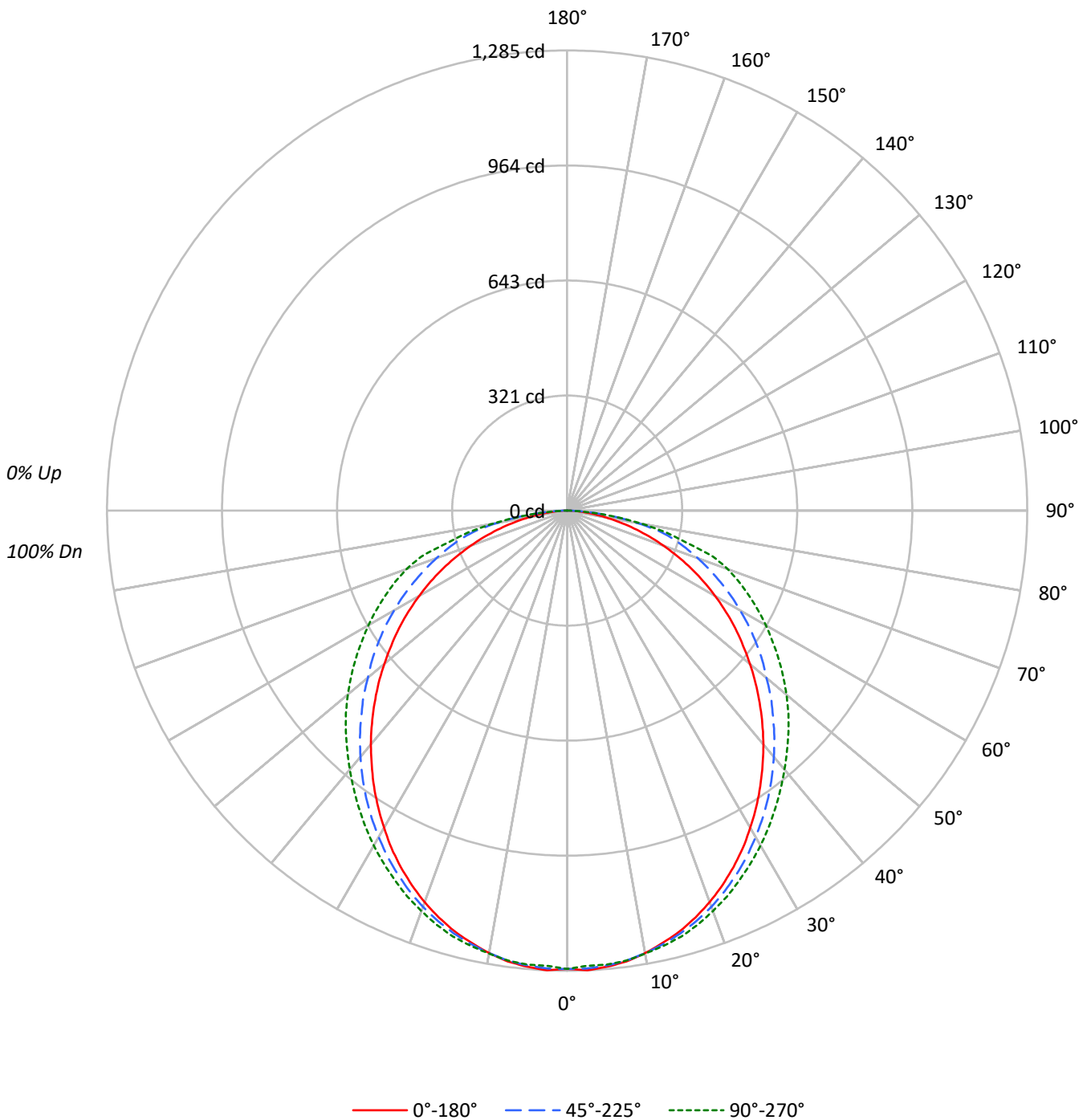
Lumens per Lamp: N/A
Luminaire Lumens: 3647.0 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 29
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°	1722	1722	1722
5°	1727	1722	1719
10°	1715	1715	1716
15°	1694	1703	1715
20°	1666	1686	1704
25°	1631	1663	1691
30°	1589	1635	1678
35°	1544	1608	1665
40°	1498	1577	1658
45°	1447	1547	1663
50°	1396	1521	1673
55°	1344	1511	1690
60°	1284	1502	1724
65°	1216	1503	1781
70°	1125	1528	1876
75°	1006	1597	1785
80°	841	1529	1635
85°	636	1176	1118



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.9	3.3
10°-20°	344.2	9.4
20°-30°	514.6	14.1
30°-40°	610.5	16.7
40°-50°	628.3	17.2
50°-60°	576.4	15.8
60°-70°	466.1	12.8
70°-80°	302.5	8.3
80°-90°	83.4	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°	979.8	26.9
0°-40°	1590.3	43.6
0°-60°	2795.1	76.6
0°-90°	3647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1280	1280	1280	1280	1280	
5°	1279	1270	1275	1274	1272	121
15°	1216	1211	1222	1228	1231	343
25°	1099	1100	1120	1130	1139	506
35°	940	948	979	1000	1014	588
45°	760	773	813	852	874	587
55°	573	591	644	697	720	512
65°	382	405	472	534	559	378
75°	194	230	307	343	343	206
85°	41	70	76	74	72	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1279.9	1279.9	1279.9	1279.9	1279.9
2.5°	1284.9	1274.9	1279.9	1278.7	1272.4
5°	1278.7	1269.9	1274.9	1273.7	1272.4
7.5°	1269.9	1261.2	1267.4	1266.2	1267.4
10°	1254.9	1247.4	1254.9	1256.2	1256.2
12.5°	1236.2	1230.0	1239.9	1242.4	1244.9
15°	1216.2	1211.2	1222.5	1227.5	1231.2
17.5°	1191.3	1187.5	1201.2	1207.5	1212.5
20°	1163.8	1162.5	1177.5	1183.8	1190.0
22.5°	1132.6	1132.6	1150.0	1157.5	1166.3
25°	1098.8	1100.1	1120.1	1130.1	1138.8
27.5°	1062.6	1063.9	1087.6	1100.1	1110.1
30°	1022.7	1027.7	1052.6	1068.9	1080.1
32.5°	982.7	989.0	1016.4	1035.2	1047.7
35°	940.3	947.8	979.0	1000.2	1013.9
37.5°	896.6	905.3	939.0	962.7	979.0
40°	852.9	862.8	897.8	925.3	944.0
42.5°	806.7	817.9	856.6	889.1	909.0
45°	760.5	772.9	812.9	851.6	874.1
47.5°	714.3	729.2	771.7	814.1	837.9
50°	666.8	681.8	726.7	775.4	799.2
52.5°	619.4	636.8	686.8	736.7	760.5
55°	573.1	590.6	644.3	696.8	720.5
57.5°	525.7	543.2	601.9	656.8	680.5
60°	477.0	497.0	558.2	614.4	640.6
62.5°	429.5	450.8	515.7	575.6	600.6
65°	382.1	404.6	472.0	534.4	559.4
67.5°	333.4	359.6	429.5	493.2	519.5
70°	286.0	314.7	388.3	452.0	477.0
72.5°	239.7	271.0	347.1	412.1	427.1
75°	193.5	229.8	307.2	343.4	343.4
77.5°	149.8	189.8	262.2	276.0	283.5
80°	108.6	152.3	197.3	213.5	211.0
82.5°	72.4	116.1	141.1	141.1	137.4
85°	41.2	69.9	76.2	73.7	72.4
87.5°	17.5	26.2	23.7	18.7	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)