

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: P233212

Luminaire Tested: **FCB-24-4-LD4-40-50-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233212
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-LD4-40-50-UNV-EDD1-WDA12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (168)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

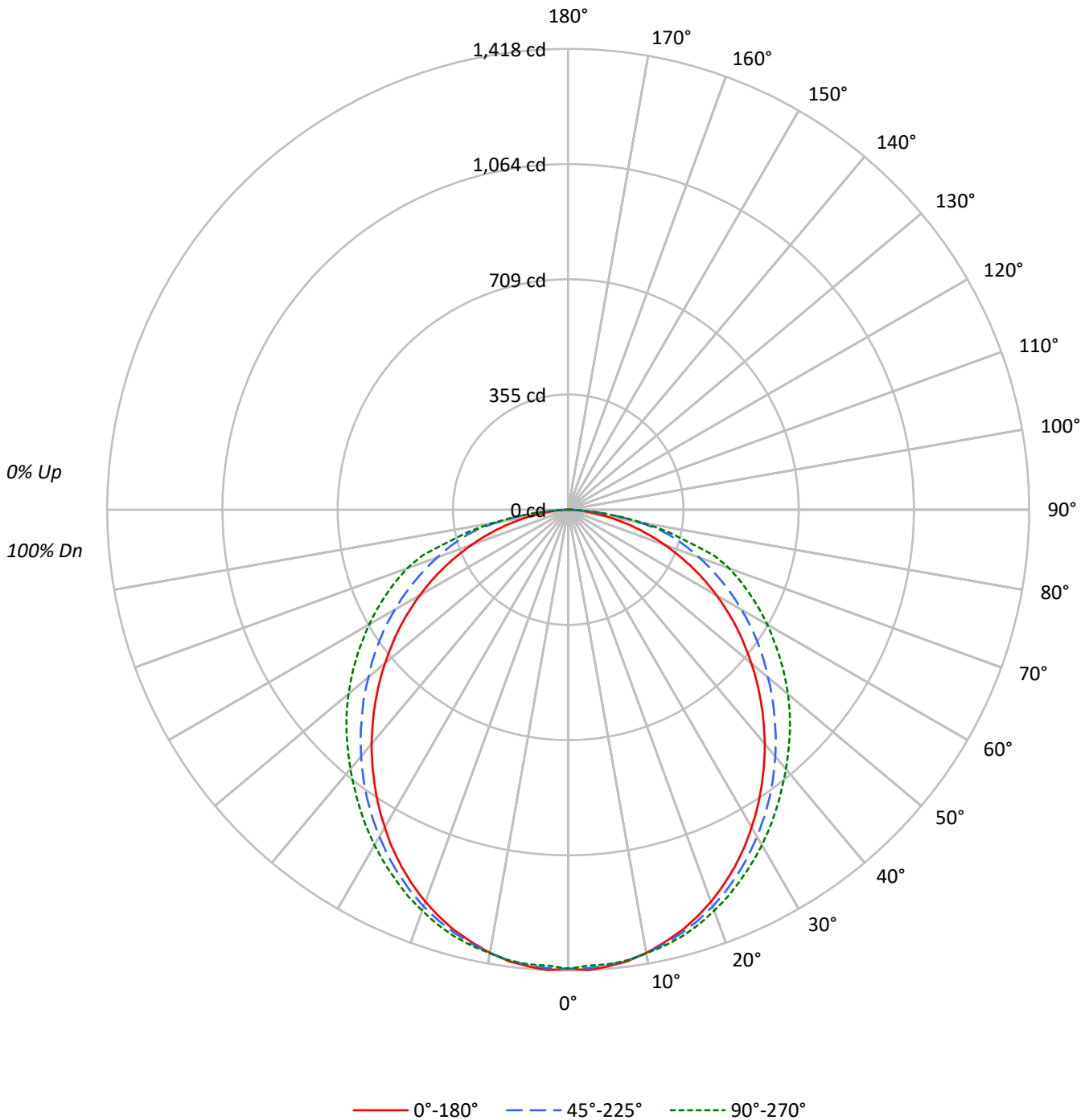
Lumens per Lamp: N/A
Luminaire Lumens: 4024.0 lumens
Efficiency: N/A
Efficacy: 138.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1900	1900	1900
5°	1905	1900	1896
10°	1892	1892	1894
15°	1869	1879	1892
20°	1839	1860	1880
25°	1800	1835	1865
30°	1753	1805	1852
35°	1704	1774	1838
40°	1653	1740	1829
45°	1597	1707	1835
50°	1540	1679	1846
55°	1483	1668	1865
60°	1416	1657	1902
65°	1342	1658	1965
70°	1241	1686	2070
75°	1110	1762	1970
80°	929	1687	1804
85°	702	1297	1233



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.4	3.3
10°-20°	379.8	9.4
20°-30°	567.8	14.1
30°-40°	673.6	16.7
40°-50°	693.3	17.2
50°-60°	636.0	15.8
60°-70°	514.3	12.8
70°-80°	333.7	8.3
80°-90°	92.0	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°	1081.1	26.9
0°-40°	1754.7	43.6
0°-60°	3084.0	76.6
0°-90°	4024.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4024.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1412	1412	1412	1412	1412	
5°	1411	1401	1407	1405	1404	134
15°	1342	1336	1349	1354	1358	378
25°	1212	1214	1236	1247	1256	558
35°	1038	1046	1080	1104	1119	649
45°	839	853	897	940	964	648
55°	632	652	711	769	795	565
65°	422	446	521	590	617	417
75°	214	254	339	379	379	227
85°	46	77	84	81	80	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1412.2	1412.2	1412.2	1412.2	1412.2
2.5°	1417.7	1406.7	1412.2	1410.8	1403.9
5°	1410.8	1401.2	1406.7	1405.3	1403.9
7.5°	1401.2	1391.5	1398.4	1397.1	1398.4
10°	1384.7	1376.4	1384.7	1386.0	1386.0
12.5°	1364.0	1357.1	1368.1	1370.9	1373.6
15°	1341.9	1336.4	1348.8	1354.3	1358.5
17.5°	1314.4	1310.3	1325.4	1332.3	1337.8
20°	1284.1	1282.7	1299.2	1306.1	1313.0
22.5°	1249.6	1249.6	1268.9	1277.2	1286.8
25°	1212.4	1213.8	1235.9	1246.9	1256.5
27.5°	1172.5	1173.9	1200.0	1213.8	1224.8
30°	1128.4	1133.9	1161.5	1179.4	1191.8
32.5°	1084.3	1091.2	1121.5	1142.2	1155.9
35°	1037.5	1045.7	1080.2	1103.6	1118.7
37.5°	989.2	998.9	1036.1	1062.3	1080.2
40°	941.0	952.0	990.6	1020.9	1041.6
42.5°	890.0	902.4	945.2	981.0	1003.0
45°	839.1	852.8	896.9	939.6	964.4
47.5°	788.1	804.6	851.5	898.3	924.5
50°	735.7	752.3	801.9	855.6	881.8
52.5°	683.4	702.7	757.8	812.9	839.1
55°	632.4	651.7	710.9	768.8	795.0
57.5°	580.0	599.3	664.1	724.7	750.9
60°	526.3	548.4	615.9	677.9	706.8
62.5°	474.0	497.4	569.0	635.2	662.7
65°	421.6	446.4	520.8	589.7	617.2
67.5°	367.9	396.8	474.0	544.2	573.2
70°	315.5	347.2	428.5	498.8	526.3
72.5°	264.5	299.0	383.0	454.7	471.2
75°	213.6	253.5	338.9	378.9	378.9
77.5°	165.3	209.4	289.3	304.5	312.8
80°	119.9	168.1	217.7	235.6	232.8
82.5°	79.9	128.1	155.7	155.7	151.6
85°	45.5	77.2	84.0	81.3	79.9
87.5°	19.3	28.9	26.2	20.7	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)