

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: P233240

Luminaire Tested: **FCB-24-4-LD4-60-50-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233240
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-LD4-60-50-UNV-EDD1-WDP12
Description: FAILSAFE 2X4 FCB LED TROFFER
.125 POLYCARBONATE LENS
Light Source: (168)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

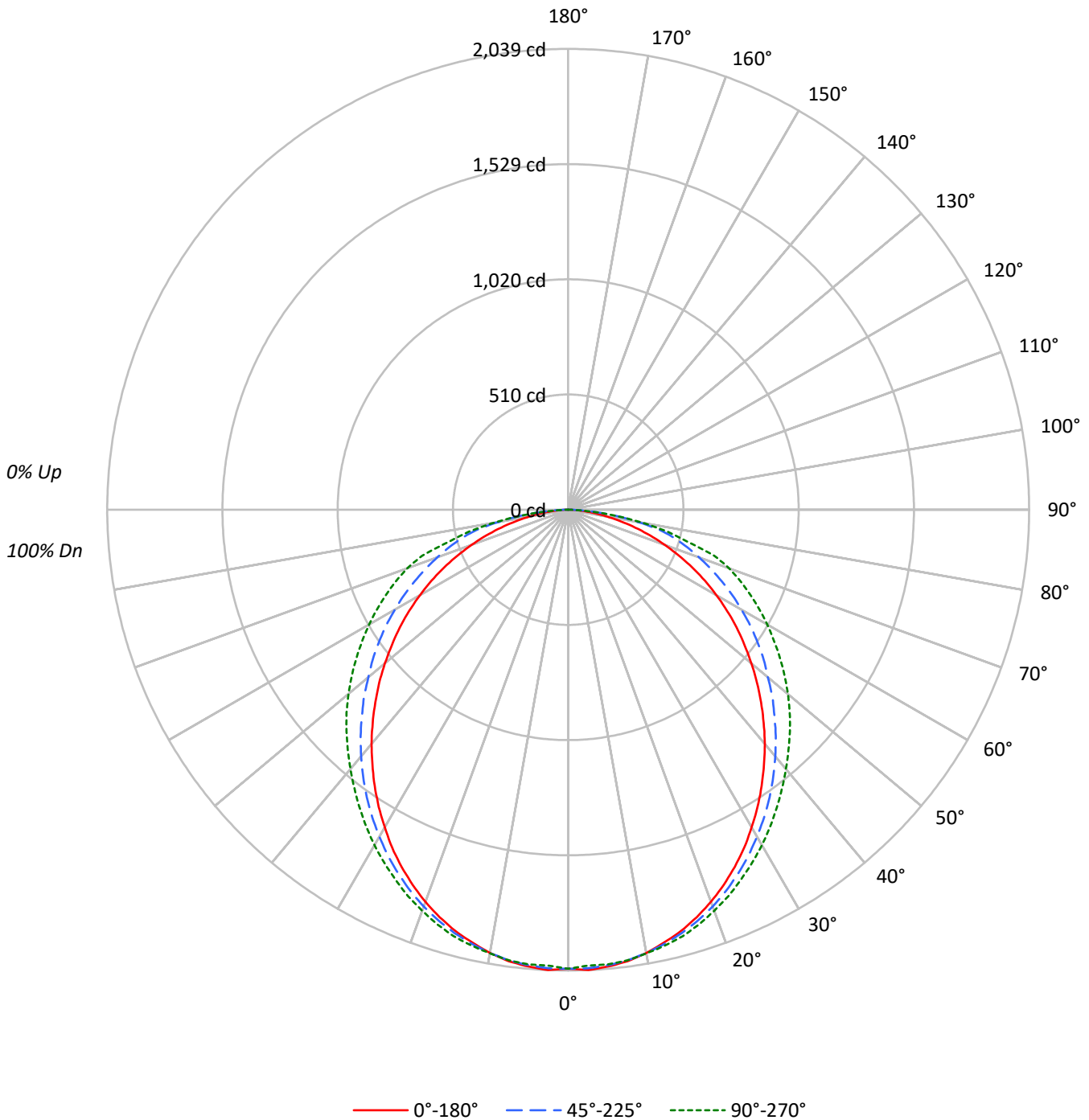
Lumens per Lamp: N/A
Luminaire Lumens: 5787.0 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2733	2733	2733
5°	2740	2732	2727
10°	2721	2721	2723
15°	2688	2702	2721
20°	2644	2675	2704
25°	2589	2639	2683
30°	2521	2595	2663
35°	2451	2552	2643
40°	2377	2502	2631
45°	2296	2454	2639
50°	2215	2414	2654
55°	2133	2398	2682
60°	2037	2383	2735
65°	1930	2385	2826
70°	1785	2424	2978
75°	1596	2534	2833
80°	1336	2426	2595
85°	1010	1866	1774



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.9	3.3
10°-20°	546.2	9.4
20°-30°	816.6	14.1
30°-40°	968.7	16.7
40°-50°	997.1	17.2
50°-60°	914.7	15.8
60°-70°	739.6	12.8
70°-80°	480.0	8.3
80°-90°	132.3	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°	1554.7	26.9
0°-40°	2523.4	43.6
0°-60°	4435.1	76.6
0°-90°	5787.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5787.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2031	2031	2031	2031	2031	
5°	2029	2015	2023	2021	2019	193
15°	1930	1922	1940	1948	1954	544
25°	1744	1746	1777	1793	1807	803
35°	1492	1504	1553	1587	1609	933
45°	1207	1226	1290	1351	1387	931
55°	910	937	1022	1106	1143	813
65°	606	642	749	848	888	599
75°	307	365	487	545	545	326
85°	65	111	121	117	115	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2030.9	2030.9	2030.9	2030.9	2030.9
2.5°	2038.9	2023.0	2030.9	2029.0	2019.0
5°	2029.0	2015.1	2023.0	2021.0	2019.0
7.5°	2015.1	2001.2	2011.1	2009.1	2011.1
10°	1991.3	1979.4	1991.3	1993.3	1993.3
12.5°	1961.6	1951.7	1967.5	1971.5	1975.5
15°	1929.9	1922.0	1939.8	1947.7	1953.7
17.5°	1890.3	1884.3	1906.1	1916.0	1923.9
20°	1846.7	1844.7	1868.5	1878.4	1888.3
22.5°	1797.1	1797.1	1824.9	1836.8	1850.6
25°	1743.6	1745.6	1777.3	1793.2	1807.0
27.5°	1686.2	1688.2	1725.8	1745.6	1761.5
30°	1622.8	1630.7	1670.3	1696.1	1713.9
32.5°	1559.4	1569.3	1612.9	1642.6	1662.4
35°	1492.0	1503.9	1553.4	1587.1	1608.9
37.5°	1422.6	1436.5	1490.0	1527.7	1553.4
40°	1353.3	1369.1	1424.6	1468.2	1497.9
42.5°	1280.0	1297.8	1359.2	1410.8	1442.5
45°	1206.7	1226.5	1289.9	1351.3	1387.0
47.5°	1133.4	1157.1	1224.5	1291.9	1329.5
50°	1058.1	1081.8	1153.2	1230.5	1268.1
52.5°	982.8	1010.5	1089.8	1169.0	1206.7
55°	909.5	937.2	1022.4	1105.6	1143.3
57.5°	834.2	861.9	955.0	1042.2	1079.9
60°	756.9	788.6	885.7	974.8	1016.5
62.5°	681.6	715.3	818.3	913.4	953.1
65°	606.3	642.0	749.0	848.0	887.7
67.5°	529.0	570.6	681.6	782.7	824.3
70°	453.7	499.3	616.2	717.3	756.9
72.5°	380.4	430.0	550.8	653.9	677.6
75°	307.1	364.6	487.4	544.9	544.9
77.5°	237.8	301.2	416.1	437.9	449.8
80°	172.4	241.7	313.1	338.8	334.9
82.5°	114.9	184.3	223.9	223.9	218.0
85°	65.4	111.0	120.9	116.9	114.9
87.5°	27.7	41.6	37.6	29.7	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)