

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: P233060

Luminaire Tested: **FCB-12-4-LD4-44-50-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233060
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35573)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-12-4-LD4-44-50-UNV-EDD1-WDP6
Description: FAILSAFE 1X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (84)5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

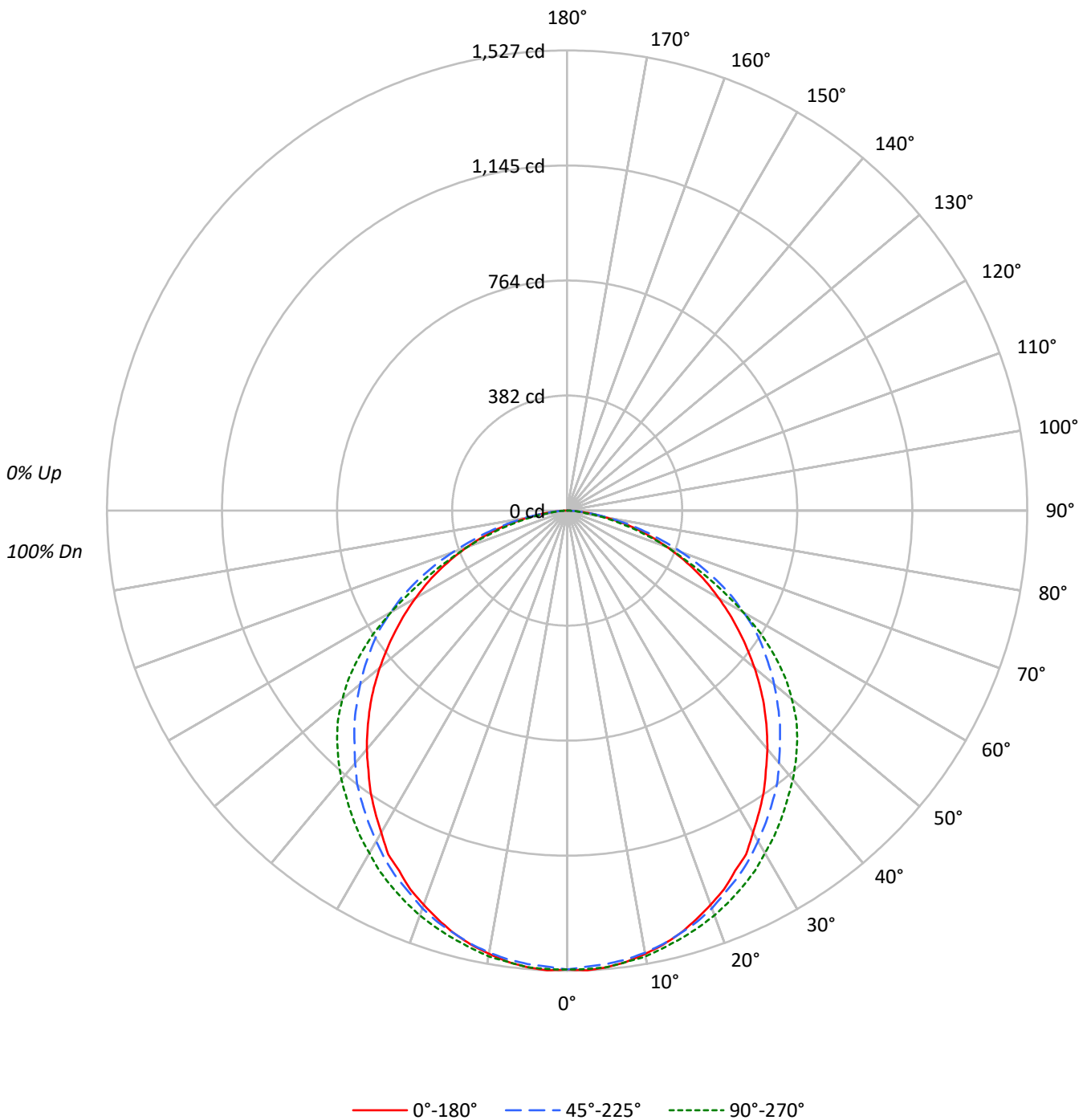
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4220.0 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	29	42	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4098	4098	4098
5°	4108	4080	4108
10°	4082	4070	4104
15°	4045	4045	4092
20°	3986	4021	4093
25°	3916	3984	4089
30°	3833	3937	4079
35°	3738	3895	4080
40°	3632	3844	4092
45°	3523	3800	4109
50°	3397	3754	4076
55°	3260	3719	3943
60°	3124	3639	3628
65°	2981	3484	3179
70°	2766	3175	2750
75°	2509	2769	2271
80°	1999	2193	1677
85°	1414	1220	963



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.1	3.4
10°-20°	411.6	9.8
20°-30°	620.6	14.7
30°-40°	743.9	17.6
40°-50°	772.0	18.3
50°-60°	696.3	16.5
60°-70°	507.9	12.0
70°-80°	266.5	6.3
80°-90°	56.9	1.3
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°	1176.4	27.9
0°-40°	1920.3	45.5
0°-60°	3388.7	80.3
0°-90°	4220.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4220.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1523	1523	1523	1523	1523	
5°	1521	1517	1510	1521	1521	144
15°	1452	1452	1452	1469	1469	409
25°	1319	1325	1342	1371	1377	609
35°	1138	1150	1186	1230	1242	711
45°	926	944	999	1059	1080	714
55°	695	720	793	845	840	622
65°	468	495	547	526	499	463
75°	241	275	266	231	218	253
85°	46	56	40	33	31	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1522.9	1522.9	1522.9	1522.9	1522.9
2.5°	1527.0	1522.9	1514.6	1522.9	1522.9
5°	1520.8	1516.6	1510.4	1520.8	1520.8
7.5°	1510.4	1506.2	1502.1	1512.5	1510.4
10°	1493.8	1491.7	1489.6	1502.1	1502.1
12.5°	1475.0	1475.0	1472.9	1487.5	1485.4
15°	1452.1	1452.1	1452.1	1468.8	1468.8
17.5°	1423.0	1427.2	1431.3	1450.1	1450.1
20°	1391.8	1396.0	1404.3	1427.2	1429.3
22.5°	1360.6	1362.7	1371.0	1398.1	1404.3
25°	1319.0	1325.2	1341.9	1371.0	1377.2
27.5°	1285.7	1287.8	1306.5	1339.8	1348.1
30°	1233.7	1248.3	1267.0	1304.4	1312.8
32.5°	1185.8	1198.3	1227.5	1267.0	1279.5
35°	1138.0	1150.5	1185.8	1229.5	1242.0
37.5°	1083.9	1102.6	1144.2	1187.9	1202.5
40°	1034.0	1050.6	1094.3	1148.4	1165.0
42.5°	979.9	996.5	1044.4	1104.7	1123.4
45°	925.8	944.5	998.6	1058.9	1079.7
47.5°	869.6	890.4	946.6	1013.2	1031.9
50°	811.4	834.3	896.7	965.3	973.6
52.5°	753.1	778.1	844.7	905.0	913.3
55°	694.9	719.8	792.6	844.7	840.5
57.5°	638.7	665.7	740.6	767.7	763.5
60°	580.4	609.6	676.1	688.6	674.1
62.5°	526.4	553.4	615.8	605.4	586.7
65°	468.1	495.1	547.2	526.4	499.3
67.5°	409.8	443.1	476.4	441.1	420.2
70°	351.6	389.0	403.6	368.2	349.5
72.5°	295.4	335.0	330.8	295.4	282.9
75°	241.3	274.6	266.3	230.9	218.4
77.5°	183.1	220.5	201.8	172.7	162.3
80°	129.0	162.3	141.5	116.5	108.2
82.5°	85.3	108.2	87.4	68.7	62.4
85°	45.8	56.2	39.5	33.3	31.2
87.5°	18.7	16.6	14.6	14.6	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)