

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: P233228

Luminaire Tested: **FCB-24-4-LD4-30-50-UNV-EDD1-WDP12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233228
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-LD4-30-50-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

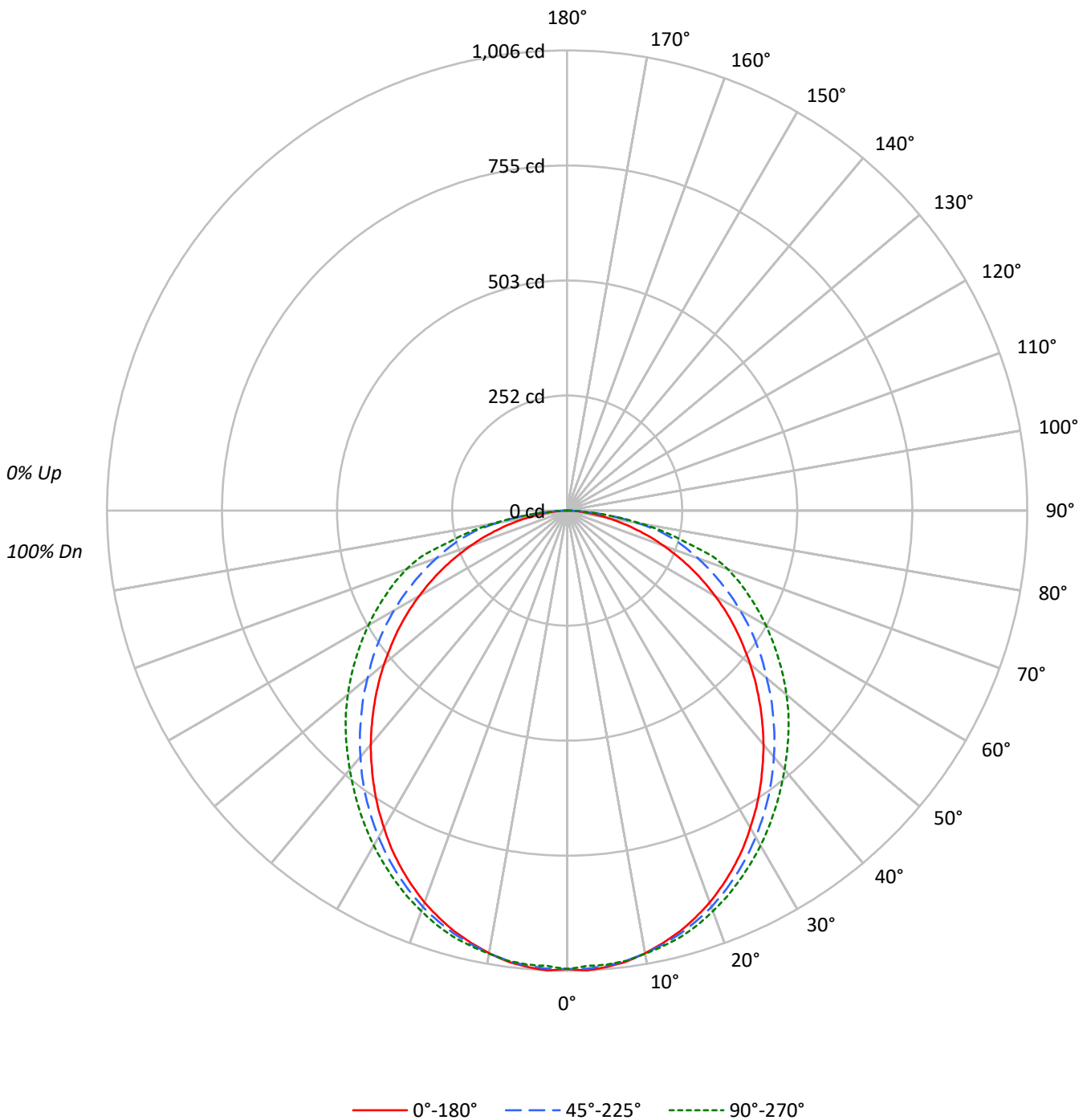
Lumens per Lamp: N/A
Luminaire Lumens: 2856.0 lumens
Efficiency: N/A
Efficacy: 132.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	1349	1349	1349
5°	1352	1348	1346
10°	1343	1343	1344
15°	1327	1333	1343
20°	1305	1320	1334
25°	1277	1302	1324
30°	1244	1281	1314
35°	1209	1259	1304
40°	1173	1235	1299
45°	1133	1211	1302
50°	1093	1191	1310
55°	1053	1184	1323
60°	1005	1176	1350
65°	953	1177	1395
70°	881	1196	1469
75°	788	1251	1398
80°	659	1197	1281
85°	499	920	875



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.7	3.3
10°-20°	269.6	9.4
20°-30°	403.0	14.1
30°-40°	478.1	16.7
40°-50°	492.1	17.2
50°-60°	451.4	15.8
60°-70°	365.0	12.8
70°-80°	236.9	8.3
80°-90°	65.3	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°	767.3	26.9
0°-40°	1245.3	43.6
0°-60°	2188.8	76.6
0°-90°	2856.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2856.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1002	1002	1002	1002	1002	
5°	1001	994	998	997	996	95
15°	952	948	957	961	964	268
25°	860	862	877	885	892	396
35°	736	742	767	783	794	460
45°	596	605	637	667	684	460
55°	449	462	505	546	564	401
65°	299	317	370	418	438	296
75°	152	180	241	269	269	161
85°	32	55	60	58	57	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1002.3	1002.3	1002.3	1002.3	1002.3
2.5°	1006.2	998.4	1002.3	1001.3	996.4
5°	1001.3	994.5	998.4	997.4	996.4
7.5°	994.5	987.6	992.5	991.6	992.5
10°	982.8	976.9	982.8	983.7	983.7
12.5°	968.1	963.2	971.0	973.0	974.9
15°	952.4	948.5	957.3	961.2	964.2
17.5°	932.9	929.9	940.7	945.6	949.5
20°	911.4	910.4	922.1	927.0	931.9
22.5°	886.9	886.9	900.6	906.5	913.3
25°	860.5	861.5	877.1	885.0	891.8
27.5°	832.2	833.1	851.7	861.5	869.3
30°	800.9	804.8	824.3	837.0	845.8
32.5°	769.6	774.5	796.0	810.6	820.4
35°	736.3	742.2	766.6	783.3	794.0
37.5°	702.1	708.9	735.4	753.9	766.6
40°	667.9	675.7	703.1	724.6	739.3
42.5°	631.7	640.5	670.8	696.2	711.9
45°	595.5	605.3	636.6	666.9	684.5
47.5°	559.3	571.1	604.3	637.6	656.1
50°	522.2	533.9	569.1	607.3	625.8
52.5°	485.0	498.7	537.8	576.9	595.5
55°	448.8	462.5	504.6	545.6	564.2
57.5°	411.7	425.4	471.3	514.4	532.9
60°	373.5	389.2	437.1	481.1	501.6
62.5°	336.4	353.0	403.9	450.8	470.4
65°	299.2	316.8	369.6	418.5	438.1
67.5°	261.1	281.6	336.4	386.3	406.8
70°	223.9	246.4	304.1	354.0	373.5
72.5°	187.7	212.2	271.8	322.7	334.4
75°	151.6	179.9	240.6	268.9	268.9
77.5°	117.3	148.6	205.4	216.1	222.0
80°	85.1	119.3	154.5	167.2	165.3
82.5°	56.7	90.9	110.5	110.5	107.6
85°	32.3	54.8	59.6	57.7	56.7
87.5°	13.7	20.5	18.6	14.7	12.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)