

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: P233043

Luminaire Tested: **FCB-12-4-LD4-35-40-UNV-EDD1-WDA6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233043
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-LD4-35-40-UNV-EDD1-WDA6
Description: FAILSAFE 1X4 FCB LED TROFFER
.060 ACRYLIC LENS
Light Source: (84)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

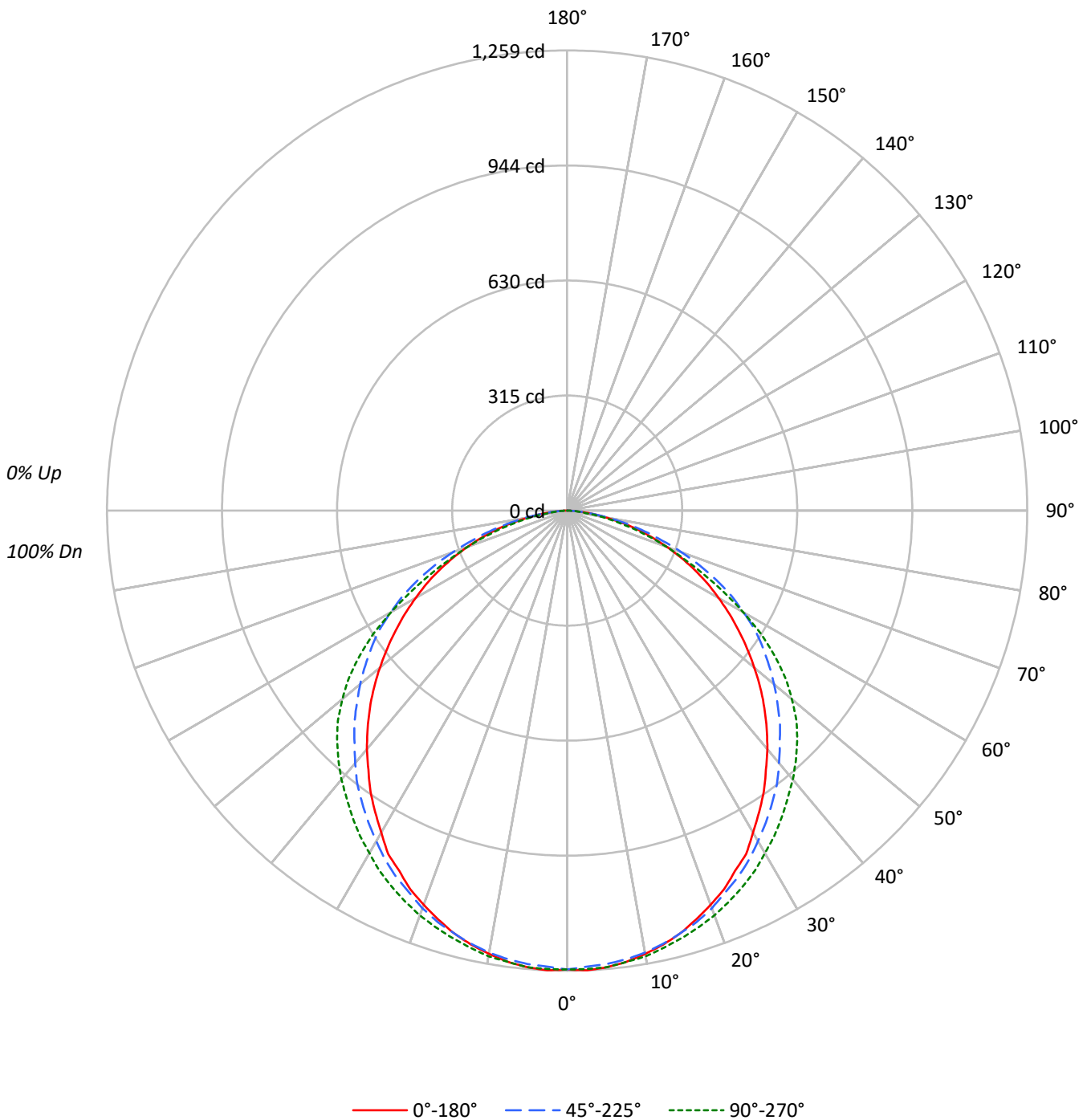
Lumens per Lamp: N/A
Luminaire Lumens: 3479.0 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70					70			
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59					59			
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51					51			
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	44					44			
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38					38			
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34					34			
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30					30			
9	57	43	35	30	55	43	35	29	42	34	29	40	34	29	39	33	29	27					27			
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3379	3379	3379
5°	3387	3364	3387
10°	3365	3355	3384
15°	3335	3335	3373
20°	3286	3315	3374
25°	3229	3285	3371
30°	3160	3246	3363
35°	3082	3211	3364
40°	2994	3169	3374
45°	2904	3133	3388
50°	2800	3095	3360
55°	2688	3066	3251
60°	2575	3000	2991
65°	2457	2872	2621
70°	2281	2618	2267
75°	2069	2282	1873
80°	1647	1807	1382
85°	1164	1007	794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.8	3.4
10°-20°	339.4	9.8
20°-30°	511.7	14.7
30°-40°	613.3	17.6
40°-50°	636.5	18.3
50°-60°	574.1	16.5
60°-70°	418.8	12.0
70°-80°	219.7	6.3
80°-90°	46.9	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°	969.8	27.9
0°-40°	1583.1	45.5
0°-60°	2793.7	80.3
0°-90°	3479.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3479.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1256	1256	1256	1256	1256	
5°	1254	1250	1245	1254	1254	119
15°	1197	1197	1197	1211	1211	337
25°	1087	1092	1106	1130	1135	502
35°	938	948	978	1014	1024	586
45°	763	779	823	873	890	588
55°	573	593	654	696	693	513
65°	386	408	451	434	412	381
75°	199	226	220	190	180	209
85°	38	46	33	27	26	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1255.5	1255.5	1255.5	1255.5	1255.5
2.5°	1258.9	1255.5	1248.6	1255.5	1255.5
5°	1253.8	1250.3	1245.2	1253.8	1253.8
7.5°	1245.2	1241.8	1238.3	1246.9	1245.2
10°	1231.5	1229.7	1228.0	1238.3	1238.3
12.5°	1216.0	1216.0	1214.3	1226.3	1224.6
15°	1197.2	1197.2	1197.2	1210.9	1210.9
17.5°	1173.1	1176.6	1180.0	1195.4	1195.4
20°	1147.4	1150.8	1157.7	1176.6	1178.3
22.5°	1121.7	1123.4	1130.3	1152.6	1157.7
25°	1087.4	1092.5	1106.3	1130.3	1135.4
27.5°	1059.9	1061.7	1077.1	1104.5	1111.4
30°	1017.1	1029.1	1044.5	1075.4	1082.2
32.5°	977.6	987.9	1011.9	1044.5	1054.8
35°	938.2	948.5	977.6	1013.6	1023.9
37.5°	893.6	909.0	943.3	979.3	991.3
40°	852.4	866.1	902.2	946.7	960.5
42.5°	807.8	821.5	861.0	910.7	926.2
45°	763.2	778.7	823.3	873.0	890.2
47.5°	716.9	734.1	780.4	835.3	850.7
50°	668.9	687.8	739.2	795.8	802.7
52.5°	620.9	641.5	696.3	746.1	752.9
55°	572.9	593.4	653.5	696.3	692.9
57.5°	526.5	548.8	610.6	632.9	629.5
60°	478.5	502.5	557.4	567.7	555.7
62.5°	433.9	456.2	507.7	499.1	483.7
65°	385.9	408.2	451.1	433.9	411.6
67.5°	337.9	365.3	392.8	363.6	346.5
70°	289.9	320.7	332.7	303.6	288.1
72.5°	243.5	276.1	272.7	243.5	233.3
75°	199.0	226.4	219.5	190.4	180.1
77.5°	150.9	181.8	166.4	142.4	133.8
80°	106.3	133.8	116.6	96.0	89.2
82.5°	70.3	89.2	72.0	56.6	51.5
85°	37.7	46.3	32.6	27.4	25.7
87.5°	15.4	13.7	12.0	12.0	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)