

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: P233121

Luminaire Tested: **FCB-24-2-LD4-24-30-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233121
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCB-24-2-LD4-24-30-UNV-EDD1-WDA12
Description: FAILSAFE 2X2 FCB LED TROFFER
.125 ACRYLIC LENS
Light Source: (84)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

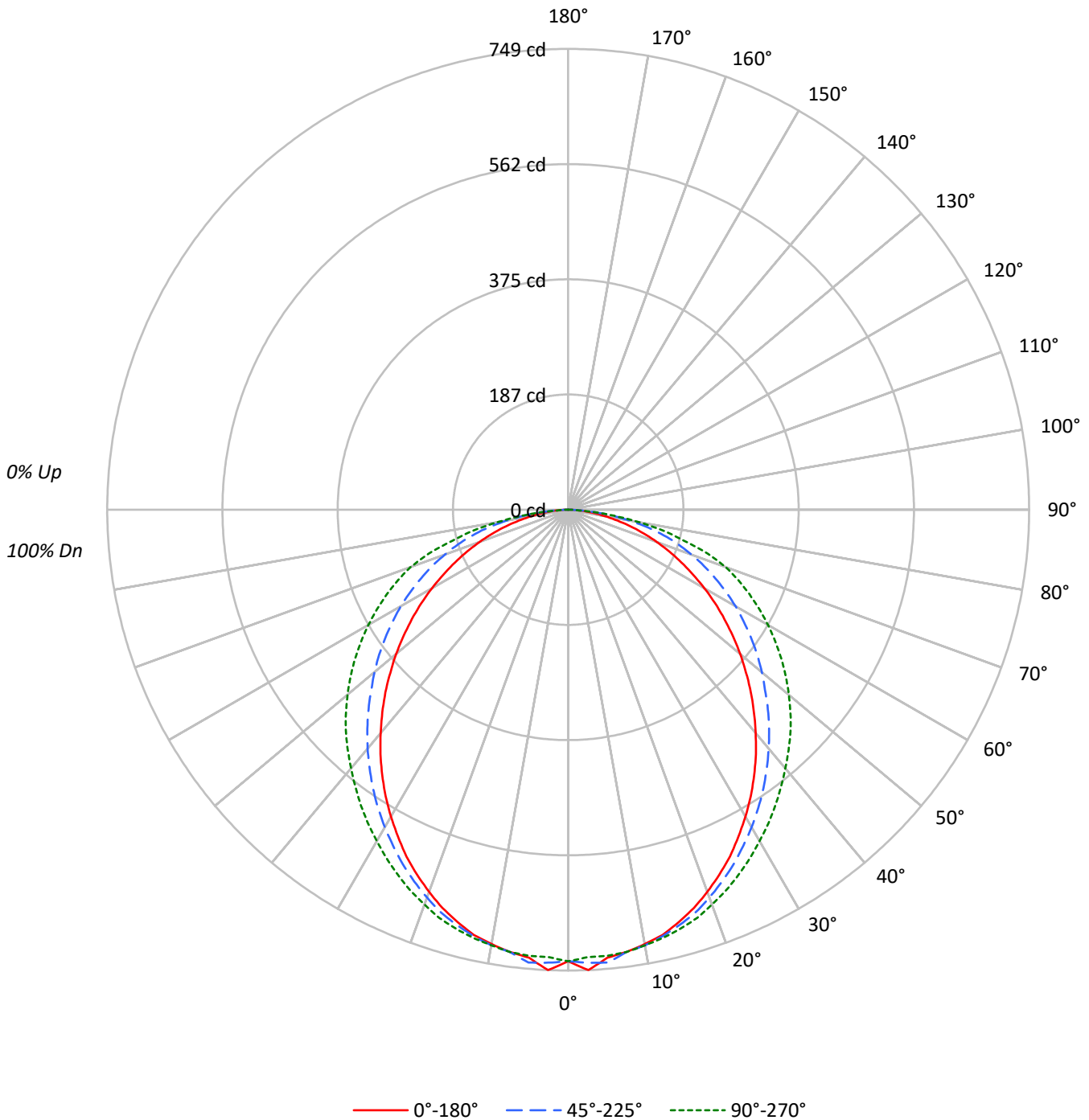
Lumens per Lamp: N/A
Luminaire Lumens: 2056.0 lumens
Efficiency: N/A
Efficacy: 104.9 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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

TEST NUMBER: P233121

CATALOG NUMBER: FCB-24-2-LD4-24-30-UNV-EDD1-WDA12

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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1975	1975	1975
5°	1974	1996	1966
10°	1959	1964	1964
15°	1933	1947	1964
20°	1893	1921	1956
25°	1847	1888	1945
30°	1789	1852	1932
35°	1731	1816	1928
40°	1665	1781	1928
45°	1598	1746	1944
50°	1528	1720	1959
55°	1454	1703	1984
60°	1377	1689	2018
65°	1293	1680	2069
70°	1204	1676	2139
75°	1092	1674	2027
80°	945	1550	1798
85°	803	1173	1142



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	3.4
10°-20°	197.2	9.6
20°-30°	293.3	14.3
30°-40°	346.9	16.9
40°-50°	356.5	17.3
50°-60°	325.8	15.8
60°-70°	260.6	12.7
70°-80°	163.6	8.0
80°-90°	42.6	2.1
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°	560.1	27.2
0°-40°	907.0	44.1
0°-60°	1589.2	77.3
0°-90°	2056.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2056.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	731	731	739	734	728	69
15°	694	695	699	703	705	195
25°	622	626	636	647	655	286
35°	527	534	553	574	587	329
45°	420	431	459	493	511	324
55°	310	325	363	403	423	277
65°	203	221	264	304	325	201
75°	105	125	161	185	195	112
85°	26	33	38	37	37	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	733.9	733.9	733.9	733.9	733.9
2.5°	748.9	745.9	736.9	730.9	727.9
5°	730.9	730.9	738.9	733.9	727.9
7.5°	724.9	724.9	724.9	739.9	724.9
10°	716.9	717.9	718.9	724.9	718.9
12.5°	707.9	707.9	709.9	711.9	712.9
15°	693.9	694.9	698.9	702.9	704.9
17.5°	678.9	681.9	686.9	691.9	695.9
20°	660.9	664.9	670.9	678.9	682.9
22.5°	641.9	645.9	653.9	662.9	669.9
25°	621.9	625.9	635.9	646.9	654.9
27.5°	598.9	603.9	615.9	630.9	638.9
30°	575.9	581.9	595.9	612.9	621.9
32.5°	551.9	558.9	574.9	593.9	604.9
35°	526.9	533.9	552.9	573.9	586.9
37.5°	500.9	508.9	529.9	553.9	567.9
40°	473.9	482.9	506.9	532.9	548.9
42.5°	446.9	456.9	482.9	513.9	529.9
45°	419.9	430.9	458.9	492.9	510.9
47.5°	391.9	404.9	433.9	471.9	489.9
50°	364.9	377.9	410.9	449.9	467.9
52.5°	336.9	351.9	386.9	426.9	445.9
55°	309.9	324.9	362.9	402.9	422.9
57.5°	282.9	297.9	337.9	378.9	398.9
60°	255.9	271.9	313.9	353.9	374.9
62.5°	229.0	246.0	288.9	329.9	349.9
65°	203.0	221.0	263.9	303.9	324.9
67.5°	178.0	197.0	239.0	277.9	298.9
70°	153.0	172.0	213.0	251.0	271.9
72.5°	129.0	148.0	188.0	222.0	238.0
75°	105.0	125.0	161.0	185.0	195.0
77.5°	82.0	102.0	133.0	149.0	160.0
80°	61.0	78.0	100.0	112.0	116.0
82.5°	42.0	56.0	70.0	73.0	75.0
85°	26.0	33.0	38.0	37.0	37.0
87.5°	12.0	13.0	11.0	8.0	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)