

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: P233190

Luminaire Tested: **FCB-24-4-LD4-40-35-UNV-EDD1-WDP6**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233190
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-LD4-40-35-UNV-EDD1-WDP6
Description: FAILSAFE 2X4 FCB LED TROFFER
.060 POLYCARBONATE LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

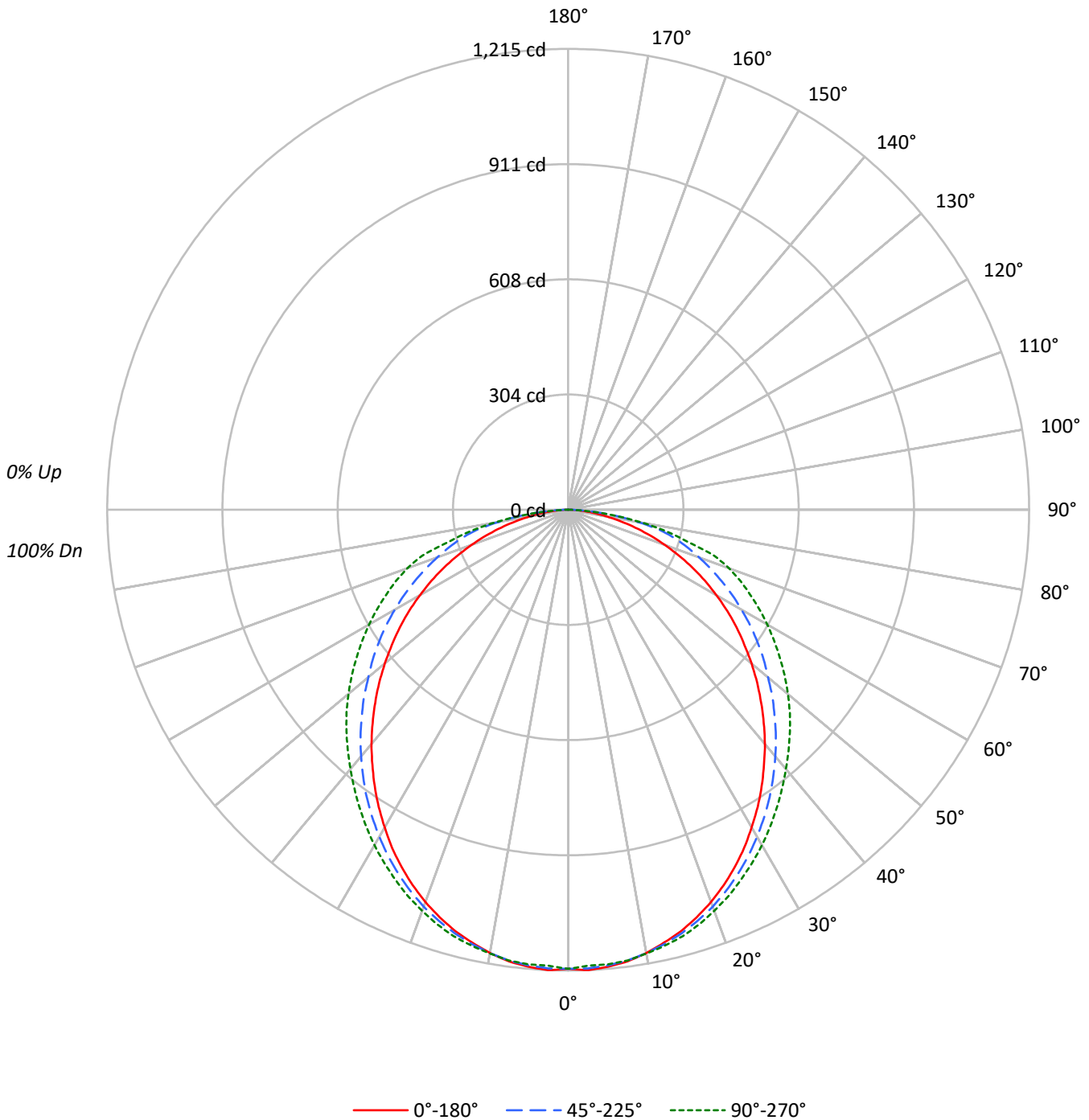
Lumens per Lamp: N/A
Luminaire Lumens: 3449.0 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 29
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°	1629	1629	1629
5°	1633	1628	1625
10°	1621	1621	1623
15°	1602	1610	1622
20°	1576	1594	1611
25°	1543	1573	1599
30°	1503	1547	1587
35°	1461	1521	1575
40°	1417	1491	1568
45°	1369	1463	1573
50°	1320	1439	1582
55°	1271	1429	1598
60°	1214	1421	1630
65°	1151	1421	1684
70°	1064	1445	1775
75°	951	1510	1688
80°	796	1446	1547
85°	602	1112	1057



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.4	3.3
10°-20°	325.5	9.4
20°-30°	486.7	14.1
30°-40°	577.3	16.7
40°-50°	594.2	17.2
50°-60°	545.1	15.8
60°-70°	440.8	12.8
70°-80°	286.1	8.3
80°-90°	78.9	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°	926.6	26.9
0°-40°	1503.9	43.6
0°-60°	2643.3	76.6
0°-90°	3449.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3449.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1210	1210	1210	1210	1210	
5°	1209	1201	1206	1204	1203	115
15°	1150	1146	1156	1161	1164	324
25°	1039	1040	1059	1069	1077	478
35°	889	896	926	946	959	556
45°	719	731	769	805	827	555
55°	542	559	609	659	681	484
65°	361	383	446	505	529	357
75°	183	217	290	325	325	195
85°	39	66	72	70	68	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1210.4	1210.4	1210.4	1210.4	1210.4
2.5°	1215.1	1205.7	1210.4	1209.2	1203.3
5°	1209.2	1201.0	1205.7	1204.5	1203.3
7.5°	1201.0	1192.7	1198.6	1197.4	1198.6
10°	1186.8	1179.7	1186.8	1188.0	1188.0
12.5°	1169.1	1163.2	1172.6	1175.0	1177.4
15°	1150.2	1145.5	1156.1	1160.8	1164.4
17.5°	1126.6	1123.0	1136.0	1141.9	1146.7
20°	1100.6	1099.4	1113.6	1119.5	1125.4
22.5°	1071.1	1071.1	1087.6	1094.7	1103.0
25°	1039.2	1040.4	1059.3	1068.7	1077.0
27.5°	1004.9	1006.1	1028.6	1040.4	1049.8
30°	967.2	971.9	995.5	1010.8	1021.5
32.5°	929.4	935.3	961.3	979.0	990.8
35°	889.2	896.3	925.8	945.9	958.9
37.5°	847.9	856.2	888.0	910.5	925.8
40°	806.6	816.0	849.1	875.0	892.8
42.5°	762.9	773.5	810.1	840.8	859.7
45°	719.2	731.0	768.8	805.4	826.6
47.5°	675.5	689.6	729.8	769.9	792.4
50°	630.6	644.8	687.3	733.3	755.8
52.5°	585.7	602.3	649.5	696.7	719.2
55°	542.0	558.6	609.3	658.9	681.4
57.5°	497.2	513.7	569.2	621.2	643.6
60°	451.1	470.0	527.9	581.0	605.8
62.5°	406.2	426.3	487.7	544.4	568.0
65°	361.4	382.6	446.4	505.4	529.0
67.5°	315.3	340.1	406.2	466.5	491.3
70°	270.4	297.6	367.3	427.5	451.1
72.5°	226.7	256.3	328.3	389.7	403.9
75°	183.0	217.3	290.5	324.7	324.7
77.5°	141.7	179.5	248.0	261.0	268.1
80°	102.7	144.1	186.6	201.9	199.6
82.5°	68.5	109.8	133.4	133.4	129.9
85°	39.0	66.1	72.0	69.7	68.5
87.5°	16.5	24.8	22.4	17.7	15.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)