

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: P233205

Luminaire Tested: **FCB-24-4-LD4-30-30-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233205  
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-LD4-30-30-UNV-EDD1-WDA12  
Description: FAILSAFE 2X4 FCB LED TROFFER  
.125 ACRYLIC LENS  
Light Source: (168)3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

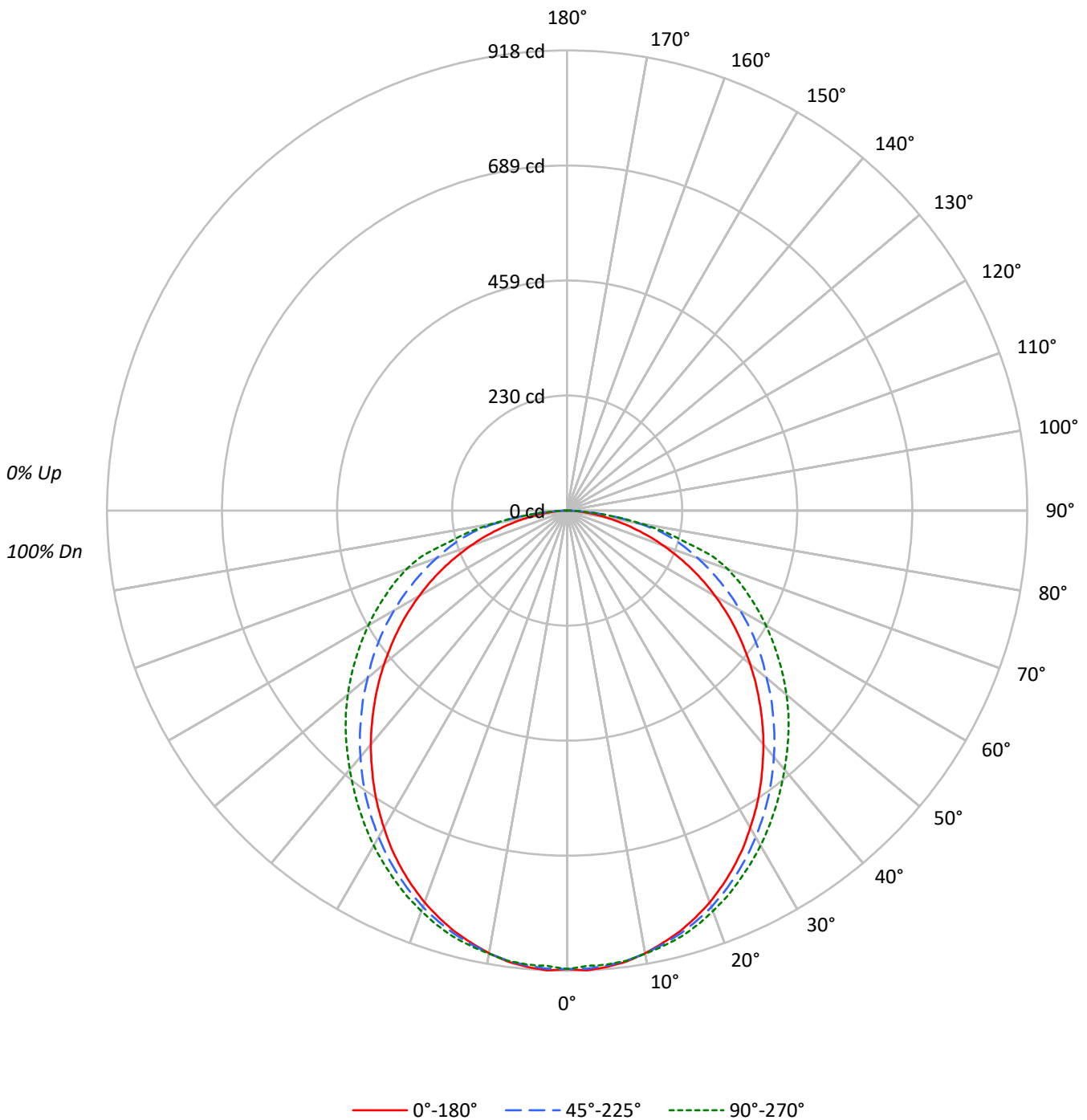
Lumens per Lamp: N/A  
Luminaire Lumens: 2606.0 lumens  
Efficiency: N/A  
Efficacy: 120.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1231	1231	1231
5°	1234	1230	1228
10°	1225	1225	1226
15°	1211	1217	1226
20°	1191	1205	1217
25°	1166	1188	1208
30°	1135	1169	1199
35°	1104	1149	1190
40°	1070	1127	1185
45°	1034	1105	1188
50°	997	1087	1195
55°	961	1080	1208
60°	917	1073	1232
65°	869	1074	1273
70°	804	1092	1341
75°	719	1141	1276
80°	601	1093	1168
85°	454	840	800



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.4	3.3
10°-20°	246.0	9.4
20°-30°	367.7	14.1
30°-40°	436.2	16.7
40°-50°	449.0	17.2
50°-60°	411.9	15.8
60°-70°	333.0	12.8
70°-80°	216.1	8.3
80°-90°	59.6	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°	700.1	26.9
0°-40°	1136.3	43.6
0°-60°	1997.2	76.6
0°-90°	2606.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2606.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	915	915	915	915	915	
5°	914	907	911	910	909	87
15°	869	866	874	877	880	245
25°	785	786	800	808	814	361
35°	672	677	700	715	724	420
45°	543	552	581	608	625	419
55°	410	422	460	498	515	366
65°	273	289	337	382	400	270
75°	138	164	220	245	245	147
85°	29	50	54	53	52	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	914.6	914.6	914.6	914.6	914.6
2.5°	918.1	911.0	914.6	913.7	909.2
5°	913.7	907.4	911.0	910.1	909.2
7.5°	907.4	901.2	905.6	904.8	905.6
10°	896.7	891.4	896.7	897.6	897.6
12.5°	883.3	878.9	886.0	887.8	889.6
15°	869.1	865.5	873.5	877.1	879.8
17.5°	851.2	848.5	858.4	862.8	866.4
20°	831.6	830.7	841.4	845.9	850.3
22.5°	809.3	809.3	821.8	827.1	833.4
25°	785.2	786.1	800.4	807.5	813.7
27.5°	759.3	760.2	777.2	786.1	793.2
30°	730.8	734.3	752.2	763.8	771.8
32.5°	702.2	706.7	726.3	739.7	748.6
35°	671.9	677.2	699.5	714.7	724.5
37.5°	640.6	646.9	671.0	687.9	699.5
40°	609.4	616.6	641.5	661.2	674.6
42.5°	576.4	584.4	612.1	635.3	649.6
45°	543.4	552.3	580.9	608.5	624.6
47.5°	510.4	521.1	551.4	581.8	598.7
50°	476.5	487.2	519.3	554.1	571.0
52.5°	442.6	455.1	490.7	526.4	543.4
55°	409.5	422.0	460.4	497.9	514.8
57.5°	375.6	388.1	430.1	469.3	486.3
60°	340.8	355.1	398.8	439.0	457.7
62.5°	306.9	322.1	368.5	411.3	429.2
65°	273.0	289.1	337.3	381.9	399.7
67.5°	238.2	257.0	306.9	352.4	371.2
70°	204.3	224.9	277.5	323.0	340.8
72.5°	171.3	193.6	248.0	294.4	305.2
75°	138.3	164.2	219.5	245.4	245.4
77.5°	107.1	135.6	187.4	197.2	202.5
80°	77.6	108.9	141.0	152.6	150.8
82.5°	51.8	83.0	100.8	100.8	98.1
85°	29.4	50.0	54.4	52.6	51.8
87.5°	12.5	18.7	17.0	13.4	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)