

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: P233150

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P233150
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
Description: FAILSAFE 2X4 FCB LED TROFFER
OPAL DIFFUSER, NO LENS
Light Source: (168)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

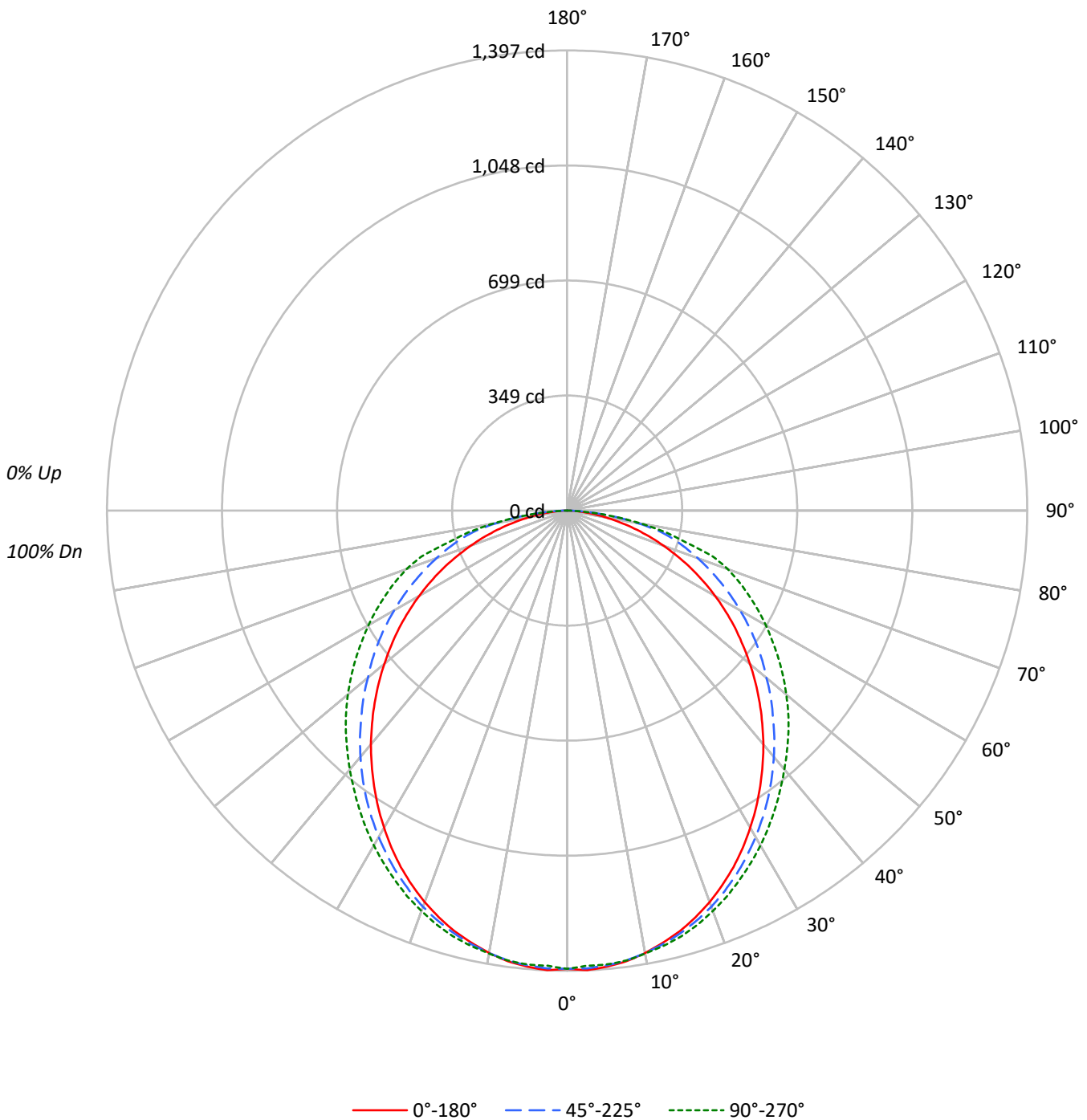
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3964.0 lumens
Efficiency: N/A
Efficacy: 136.7 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°	1872	1872	1872
5°	1877	1872	1868
10°	1864	1864	1865
15°	1841	1851	1864
20°	1811	1833	1852
25°	1773	1807	1838
30°	1727	1778	1824
35°	1679	1748	1810
40°	1628	1714	1802
45°	1573	1681	1808
50°	1517	1653	1818
55°	1461	1643	1837
60°	1395	1633	1874
65°	1322	1633	1936
70°	1223	1661	2040
75°	1094	1736	1940
80°	915	1661	1777
85°	692	1278	1215



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.5	3.3
10°-20°	374.2	9.4
20°-30°	559.3	14.1
30°-40°	663.5	16.7
40°-50°	683.0	17.2
50°-60°	626.5	15.8
60°-70°	506.6	12.8
70°-80°	328.8	8.3
80°-90°	90.7	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°	1064.9	26.9
0°-40°	1728.5	43.6
0°-60°	3038.0	76.6
0°-90°	3964.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3964.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1390	1380	1386	1384	1383	132
15°	1322	1316	1329	1334	1338	372
25°	1194	1196	1217	1228	1238	550
35°	1022	1030	1064	1087	1102	639
45°	827	840	884	926	950	638
55°	623	642	700	757	783	557
65°	415	440	513	581	608	410
75°	210	250	334	373	373	224
85°	45	76	83	80	79	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1391.2	1391.2	1391.2	1391.2	1391.2
2.5°	1396.6	1385.7	1391.2	1389.8	1383.0
5°	1389.8	1380.3	1385.7	1384.4	1383.0
7.5°	1380.3	1370.8	1377.6	1376.2	1377.6
10°	1364.0	1355.9	1364.0	1365.4	1365.4
12.5°	1343.7	1336.9	1347.7	1350.4	1353.2
15°	1321.9	1316.5	1328.7	1334.2	1338.2
17.5°	1294.8	1290.7	1305.7	1312.4	1317.9
20°	1264.9	1263.6	1279.9	1286.7	1293.4
22.5°	1231.0	1231.0	1250.0	1258.1	1267.7
25°	1194.4	1195.7	1217.4	1228.3	1237.8
27.5°	1155.0	1156.4	1182.1	1195.7	1206.6
30°	1111.6	1117.0	1144.1	1161.8	1174.0
32.5°	1068.1	1074.9	1104.8	1125.1	1138.7
35°	1022.0	1030.1	1064.1	1087.1	1102.1
37.5°	974.5	984.0	1020.6	1046.4	1064.1
40°	927.0	937.8	975.8	1005.7	1026.1
42.5°	876.8	889.0	931.1	966.3	988.1
45°	826.6	840.1	883.6	925.6	950.1
47.5°	776.3	792.6	838.8	884.9	910.7
50°	724.8	741.0	789.9	842.8	868.6
52.5°	673.2	692.2	746.5	800.8	826.6
55°	623.0	642.0	700.3	757.3	783.1
57.5°	571.4	590.4	654.2	713.9	739.7
60°	518.5	540.2	606.7	667.8	696.3
62.5°	466.9	490.0	560.5	625.7	652.8
65°	415.3	439.7	513.0	580.9	608.0
67.5°	362.4	390.9	466.9	536.1	564.6
70°	310.8	342.0	422.1	491.3	518.5
72.5°	260.6	294.5	377.3	447.9	464.2
75°	210.4	249.7	333.9	373.2	373.2
77.5°	162.9	206.3	285.0	299.9	308.1
80°	118.1	165.6	214.4	232.1	229.4
82.5°	78.7	126.2	153.4	153.4	149.3
85°	44.8	76.0	82.8	80.1	78.7
87.5°	19.0	28.5	25.8	20.4	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)