

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P562226

Luminaire Tested: FSR-24-4-LD4-1LO-50-UNV-80-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562226
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-1LO-50-UNV-80-85-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2552.0 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

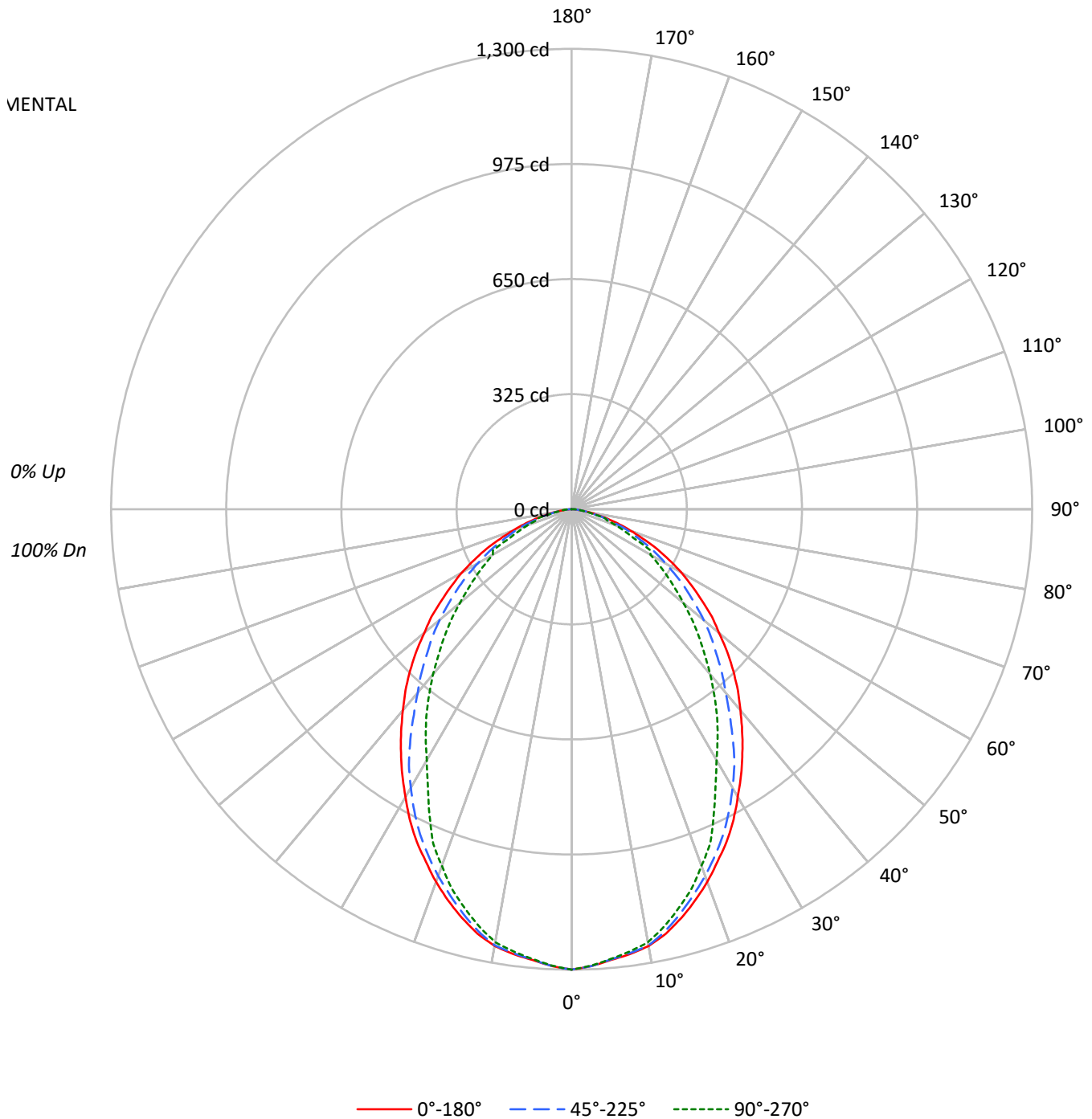
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1749	1749	1749
5°	1725	1723	1721
10°	1710	1708	1696
15°	1664	1647	1624
20°	1603	1577	1534
25°	1537	1504	1410
30°	1457	1410	1270
35°	1380	1303	1175
40°	1301	1188	1069
45°	1227	1098	967
50°	1136	1019	862
55°	1050	924	772
60°	963	825	692
65°	847	722	613
70°	697	633	520
75°	555	485	508
80°	373	349	326
85°	232	278	324

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1227 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.0	4.7
10°-20°	332.1	13.0
20°-30°	459.8	18.0
30°-40°	490.3	19.2
40°-50°	447.2	17.5
50°-60°	350.4	13.7
60°-70°	228.4	8.9
70°-80°	101.2	4.0
80°-90°	21.7	0.9
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°	912.9	35.8
0°-40°	1403.1	55.0
0°-60°	2200.7	86.2
0°-90°	2552.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2552.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1300	1300	1300	1300	1300	
5°	1277	1276	1276	1274	1274	121
15°	1195	1195	1183	1171	1166	336
25°	1036	1029	1013	977	950	475
35°	840	834	794	733	715	525
45°	645	631	577	529	508	497
55°	448	434	394	347	329	402
65°	266	251	227	231	192	262
75°	107	99	93	89	98	114
85°	15	16	18	20	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1300.0	1300.0	1300.0	1300.0	1300.0
2.5°	1290.9	1290.9	1290.9	1289.4	1289.4
5°	1277.4	1275.9	1275.9	1274.4	1274.4
7.5°	1266.9	1265.4	1263.9	1262.4	1259.4
10°	1251.9	1251.9	1250.4	1242.8	1241.3
12.5°	1227.8	1226.3	1220.3	1209.8	1206.8
15°	1194.8	1194.8	1182.7	1170.7	1166.2
17.5°	1158.7	1157.2	1142.2	1130.1	1124.1
20°	1119.6	1116.6	1101.6	1082.0	1071.5
22.5°	1076.0	1076.0	1058.0	1032.4	1021.9
25°	1035.5	1029.4	1012.9	976.8	949.8
27.5°	988.9	979.9	961.8	910.7	879.2
30°	937.8	933.3	907.7	841.6	817.5
32.5°	889.7	882.2	855.1	786.0	766.4
35°	840.1	834.1	793.5	733.4	715.4
37.5°	790.5	783.0	731.9	683.8	661.2
40°	740.9	731.9	676.3	632.7	608.6
42.5°	694.3	682.3	628.2	581.6	554.5
45°	644.7	631.2	577.1	529.0	508.0
47.5°	595.1	583.1	533.5	483.9	459.9
50°	542.5	532.0	486.9	437.3	411.8
52.5°	498.9	482.4	438.8	389.2	368.2
55°	447.8	434.3	393.7	347.2	329.1
57.5°	401.3	387.7	350.2	306.6	291.6
60°	357.7	338.1	306.6	269.0	257.0
62.5°	309.6	294.6	267.5	235.9	251.0
65°	266.0	251.0	226.9	231.4	192.4
67.5°	217.9	210.4	189.4	168.3	162.3
70°	177.3	168.3	160.8	138.3	132.2
72.5°	141.3	132.2	121.7	109.7	105.2
75°	106.7	99.2	93.2	88.7	97.7
77.5°	73.6	70.6	66.1	61.6	60.1
80°	48.1	46.6	45.1	43.6	42.1
82.5°	28.6	28.6	28.6	28.6	28.6
85°	15.0	16.5	18.0	19.5	21.0
87.5°	9.0	9.0	10.5	12.0	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)