

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: P561081

Luminaire Tested: FSR-12-4-LD4-1LO-50-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561081
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-12-4-LD4-1LO-50-UNV-80-88-EDD
Description: 1X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

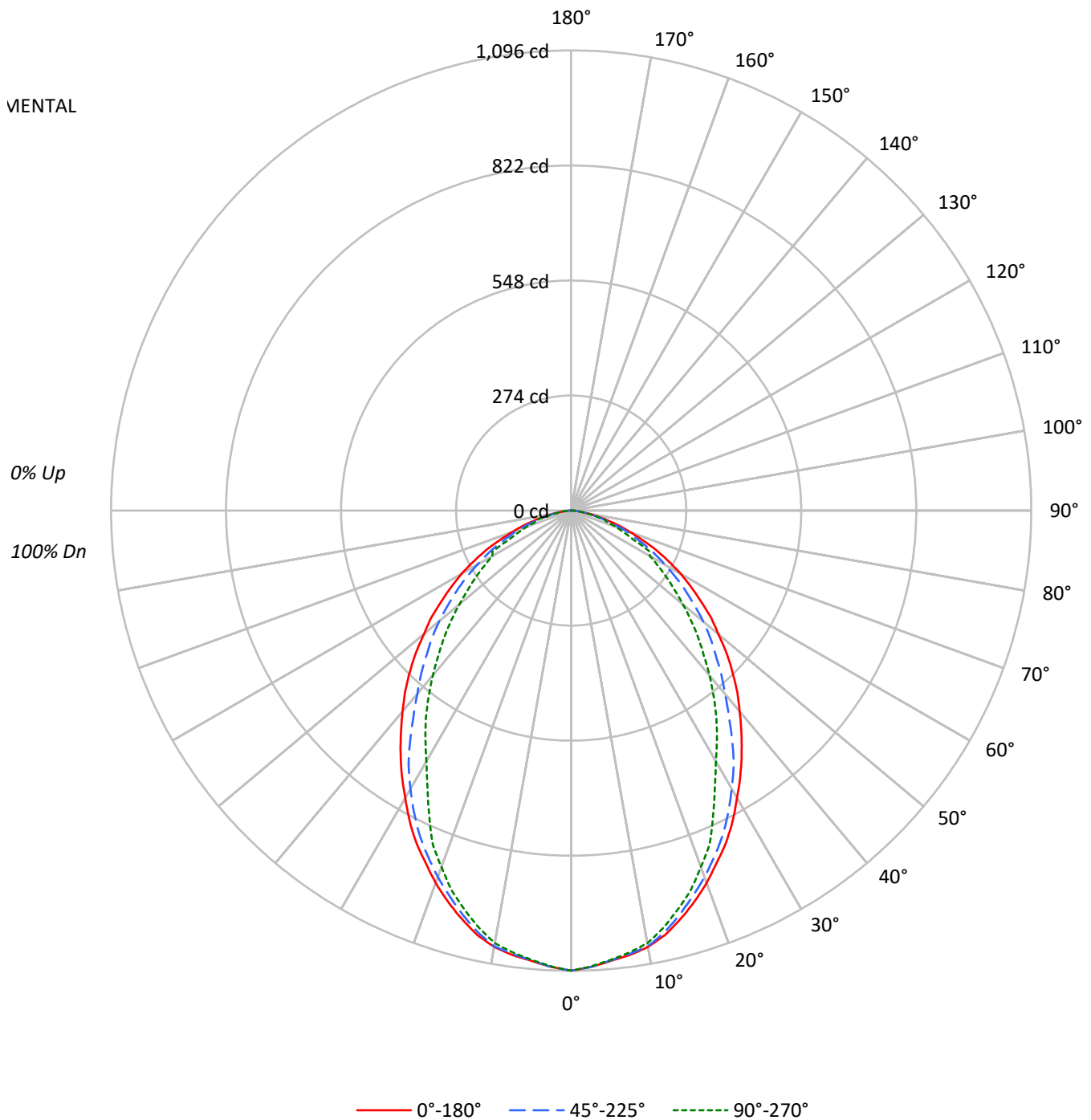
Lumens per Lamp: N/A
Luminaire Lumens: 2151.0 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2949	2949	2949
5°	2908	2905	2902
10°	2883	2880	2859
15°	2805	2777	2739
20°	2702	2659	2586
25°	2591	2535	2377
30°	2456	2377	2141
35°	2326	2197	1981
40°	2194	2002	1802
45°	2068	1851	1629
50°	1914	1718	1453
55°	1771	1557	1301
60°	1623	1391	1166
65°	1428	1218	1032
70°	1176	1066	877
75°	935	816	856
80°	628	589	550
85°	392	469	546

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2068 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	4.7
10°-20°	279.9	13.0
20°-30°	387.5	18.0
30°-40°	413.2	19.2
40°-50°	377.0	17.5
50°-60°	295.3	13.7
60°-70°	192.5	8.9
70°-80°	85.3	4.0
80°-90°	18.3	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°	769.4	35.8
0°-40°	1182.6	55.0
0°-60°	1854.9	86.2
0°-90°	2151.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2151.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1096	1096	1096	1096	1096	
5°	1077	1075	1075	1074	1074	102
15°	1007	1007	997	987	983	283
25°	873	868	854	823	801	401
35°	708	703	669	618	603	443
45°	543	532	486	446	428	419
55°	378	366	332	293	277	339
65°	224	212	191	195	162	221
75°	90	84	78	75	82	96
85°	13	14	15	16	18	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1095.7	1095.7	1095.7	1095.7	1095.7
2.5°	1088.1	1088.1	1088.1	1086.8	1086.8
5°	1076.7	1075.4	1075.4	1074.2	1074.2
7.5°	1067.8	1066.6	1065.3	1064.0	1061.5
10°	1055.2	1055.2	1053.9	1047.6	1046.3
12.5°	1034.9	1033.6	1028.6	1019.7	1017.2
15°	1007.0	1007.0	996.9	986.8	983.0
17.5°	976.6	975.4	962.7	952.6	947.5
20°	943.7	941.2	928.5	912.0	903.2
22.5°	907.0	907.0	891.8	870.2	861.4
25°	872.8	867.7	853.8	823.4	800.6
27.5°	833.5	825.9	810.7	767.6	741.0
30°	790.4	786.6	765.1	709.3	689.1
32.5°	749.9	743.5	720.7	662.5	646.0
35°	708.1	703.0	668.8	618.1	602.9
37.5°	666.3	659.9	616.9	576.3	557.3
40°	624.5	616.9	570.0	533.3	513.0
42.5°	585.2	575.1	529.5	490.2	467.4
45°	543.4	532.0	486.4	445.9	428.1
47.5°	501.6	491.5	449.7	407.9	387.6
50°	457.3	448.4	410.4	368.6	347.1
52.5°	420.5	406.6	369.9	328.1	310.3
55°	377.5	366.1	331.9	292.6	277.4
57.5°	338.2	326.8	295.1	258.4	245.7
60°	301.5	285.0	258.4	226.7	216.6
62.5°	260.9	248.3	225.5	198.9	211.5
65°	224.2	211.5	191.3	195.1	162.1
67.5°	183.7	177.3	159.6	141.9	136.8
70°	149.5	141.9	135.5	116.5	111.5
72.5°	119.1	111.5	102.6	92.5	88.7
75°	89.9	83.6	78.5	74.7	82.3
77.5°	62.1	59.5	55.7	51.9	50.7
80°	40.5	39.3	38.0	36.7	35.5
82.5°	24.1	24.1	24.1	24.1	24.1
85°	12.7	13.9	15.2	16.5	17.7
87.5°	7.6	7.6	8.9	10.1	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)