

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: P589977

Luminaire Tested: FSR-24-2-LD4-1LO-40-UNV-80-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589977
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1LO-40-UNV-80-88-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1243.0 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

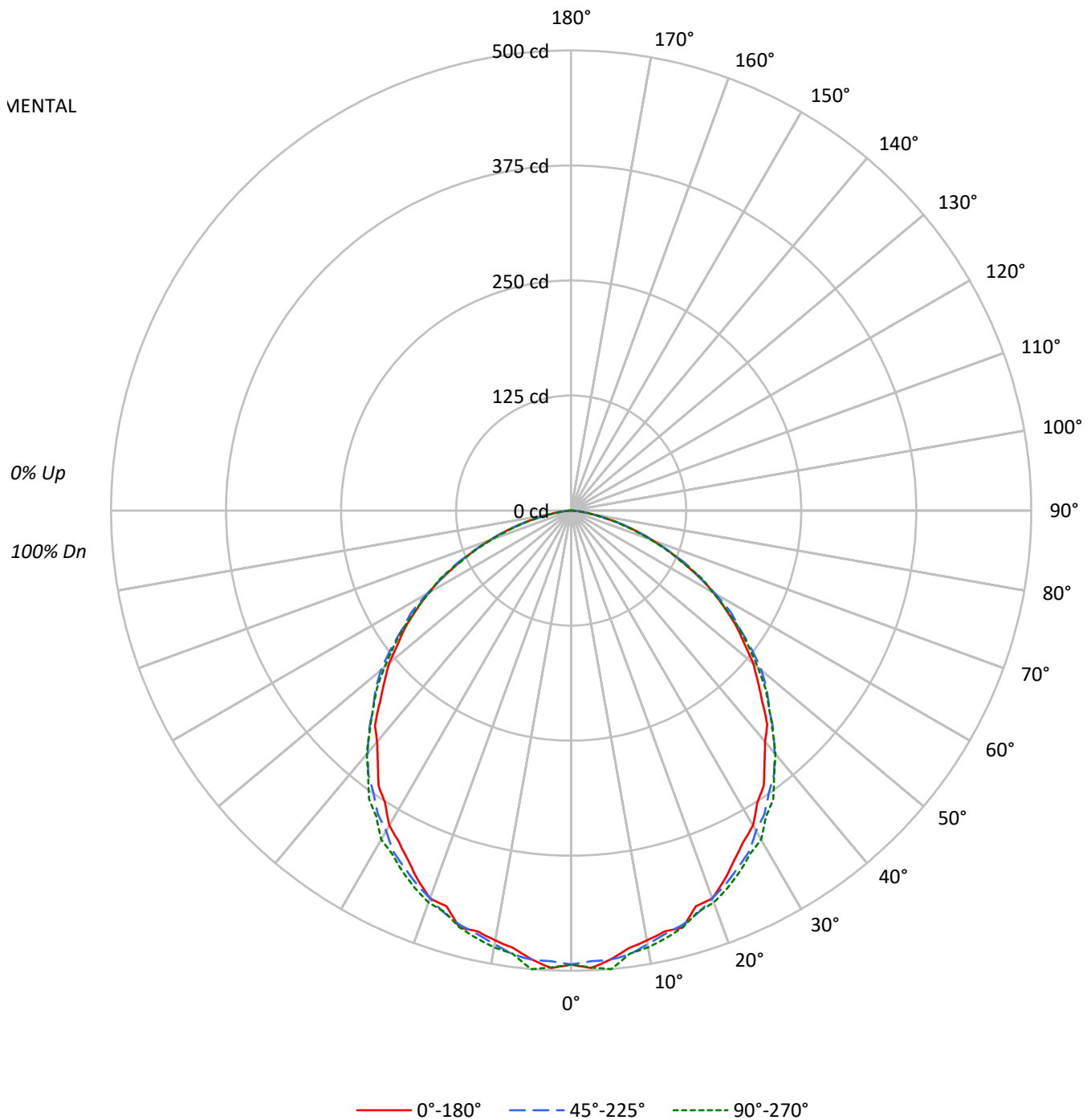
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1327	1327	1327
5°	1323	1323	1351
10°	1296	1307	1317
15°	1306	1299	1306
20°	1284	1284	1298
25°	1245	1272	1286
30°	1228	1249	1282
35°	1199	1230	1258
40°	1152	1207	1213
45°	1117	1157	1158
50°	1081	1129	1108
55°	1029	1050	1042
60°	963	973	955
65°	858	880	853
70°	736	739	718
75°	583	582	559
80°	391	380	366
85°	213	210	198

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1187 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.4	3.7
10°-20°	131.5	10.6
20°-30°	197.0	15.8
30°-40°	233.5	18.8
40°-50°	233.9	18.8
50°-60°	198.5	16.0
60°-70°	133.9	10.8
70°-80°	58.8	4.7
80°-90°	9.5	0.8
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°	374.9	30.2
0°-40°	608.3	48.9
0°-60°	1040.8	83.7
0°-90°	1243.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1243.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	493	493	493	493	493	
5°	490	488	490	488	500	46
15°	469	464	466	469	469	131
25°	419	422	428	434	433	194
35°	365	366	374	383	383	227
45°	294	299	304	312	304	227
55°	219	218	224	222	222	195
65°	135	133	138	133	134	134
75°	56	55	56	52	54	60
85°	7	7	7	7	6	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	493.2	493.2	493.2	493.2	493.2
2.5°	497.5	493.7	490.2	494.3	496.8
5°	489.7	488.5	489.9	488.4	500.2
7.5°	479.6	484.0	486.6	485.0	485.7
10°	474.3	472.8	478.4	482.4	481.8
12.5°	468.5	470.8	471.2	475.4	475.8
15°	468.9	463.5	466.3	468.7	468.9
17.5°	450.7	456.5	458.5	464.0	457.1
20°	448.4	444.2	448.4	454.1	453.2
22.5°	434.7	430.0	439.1	444.2	443.8
25°	419.2	421.5	428.4	434.0	433.1
27.5°	405.6	408.2	418.1	425.8	420.8
30°	395.1	393.7	402.0	408.9	412.7
32.5°	376.3	381.1	390.8	397.6	394.0
35°	364.9	366.0	374.4	383.1	382.8
37.5°	344.9	350.0	361.9	364.3	362.1
40°	327.9	333.0	343.7	346.3	345.3
42.5°	315.4	316.3	325.5	328.5	323.7
45°	293.6	299.0	304.0	311.8	304.4
47.5°	275.0	277.5	288.2	290.3	286.4
50°	258.1	259.0	269.7	267.1	264.6
52.5°	236.9	240.6	246.7	246.2	243.2
55°	219.4	218.0	223.7	222.2	222.1
57.5°	198.5	201.0	205.7	203.3	199.4
60°	178.9	178.9	180.7	177.9	177.4
62.5°	157.0	157.8	158.2	154.8	160.3
65°	134.8	133.0	138.2	133.0	133.9
67.5°	114.4	115.3	114.7	111.4	112.7
70°	93.6	94.8	93.9	90.2	91.3
72.5°	74.6	73.2	74.1	69.4	71.6
75°	56.1	55.0	56.0	52.0	53.8
77.5°	38.2	39.1	38.5	36.4	37.6
80°	25.2	24.5	24.5	23.3	23.6
82.5°	14.7	14.0	13.8	13.4	14.0
85°	6.9	6.7	6.8	6.6	6.4
87.5°	2.5	2.5	2.5	2.4	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)