

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: P589944

Luminaire Tested: FSR-24-2-LD4-1LO-35-UNV-80-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589944
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-35-UNV-80-87-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1366.0 lumens
Efficiency: N/A
Efficacy: 116.8 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

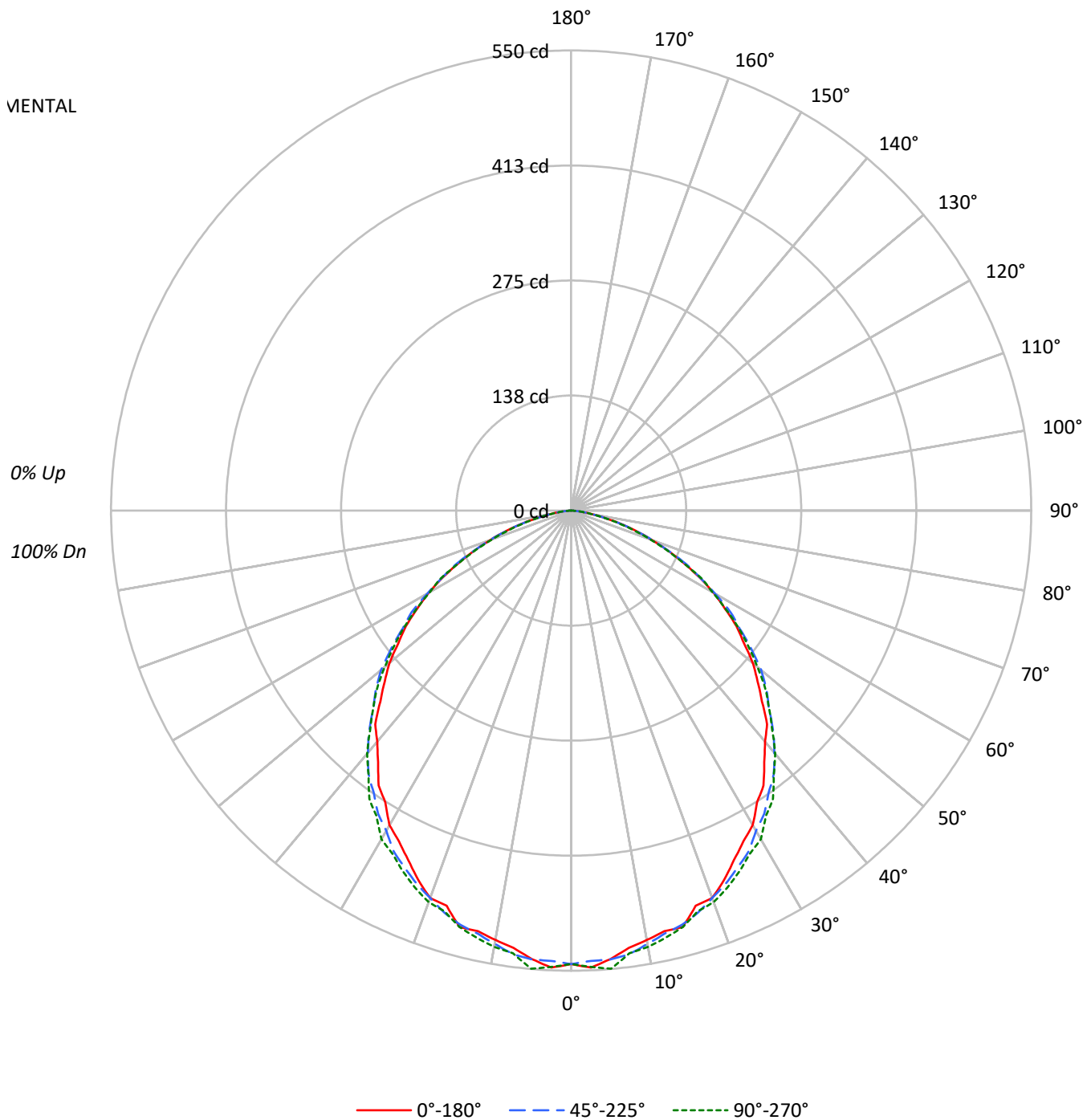
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	1459	1459	1459
5°	1454	1454	1485
10°	1424	1437	1447
15°	1436	1428	1436
20°	1411	1411	1426
25°	1368	1398	1413
30°	1349	1373	1409
35°	1317	1352	1382
40°	1266	1327	1333
45°	1228	1271	1273
50°	1187	1241	1217
55°	1132	1153	1145
60°	1058	1068	1049
65°	943	967	937
70°	810	812	790
75°	642	639	614
80°	429	417	401
85°	235	232	216

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1304 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.0	3.7
10°-20°	144.5	10.6
20°-30°	216.5	15.8
30°-40°	256.6	18.8
40°-50°	257.0	18.8
50°-60°	218.2	16.0
60°-70°	147.1	10.8
70°-80°	64.7	4.7
80°-90°	10.5	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°	412.0	30.2
0°-40°	668.5	48.9
0°-60°	1143.8	83.7
0°-90°	1366.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1366.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	542	542	542	542	542	
5°	538	537	538	537	550	51
15°	515	509	512	515	515	144
25°	461	463	471	477	476	213
35°	401	402	412	421	421	249
45°	323	329	334	343	335	250
55°	241	240	246	244	244	215
65°	148	146	152	146	147	147
75°	62	60	62	57	59	66
85°	8	7	8	7	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	542.0	542.0	542.0	542.0	542.0
2.5°	546.7	542.6	538.7	543.2	545.9
5°	538.1	536.9	538.4	536.7	549.7
7.5°	527.1	531.9	534.7	533.0	533.7
10°	521.2	519.5	525.8	530.1	529.5
12.5°	514.9	517.4	517.8	522.5	522.9
15°	515.3	509.3	512.5	515.1	515.3
17.5°	495.2	501.7	503.9	509.9	502.4
20°	492.8	488.1	492.8	499.0	498.0
22.5°	477.8	472.5	482.6	488.1	487.8
25°	460.7	463.2	470.8	476.9	475.9
27.5°	445.7	448.6	459.4	467.9	462.4
30°	434.2	432.7	441.8	449.3	453.5
32.5°	413.5	418.8	429.5	437.0	433.0
35°	401.0	402.2	411.5	421.0	420.7
37.5°	379.1	384.6	397.7	400.4	397.9
40°	360.4	365.9	377.8	380.6	379.4
42.5°	346.6	347.6	357.7	361.0	355.8
45°	322.6	328.6	334.1	342.7	334.6
47.5°	302.2	305.0	316.7	319.0	314.8
50°	283.6	284.6	296.4	293.6	290.8
52.5°	260.3	264.5	271.1	270.5	267.3
55°	241.2	239.5	245.8	244.2	244.1
57.5°	218.1	220.9	226.1	223.4	219.2
60°	196.6	196.6	198.5	195.5	195.0
62.5°	172.6	173.4	173.8	170.1	176.1
65°	148.1	146.2	151.9	146.1	147.1
67.5°	125.7	126.7	126.1	122.5	123.9
70°	102.9	104.1	103.2	99.1	100.4
72.5°	82.0	80.5	81.5	76.3	78.7
75°	61.7	60.4	61.5	57.2	59.1
77.5°	42.0	43.0	42.3	40.0	41.3
80°	27.7	26.9	26.9	25.6	25.9
82.5°	16.2	15.4	15.2	14.8	15.4
85°	7.6	7.3	7.5	7.3	7.0
87.5°	2.7	2.8	2.8	2.7	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)