

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: P590009

Luminaire Tested: FSR-24-2-LD4-1LO-50-UNV-80-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590009
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-50-UNV-80-88-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1264.0 lumens
Efficiency: N/A
Efficacy: 108.0 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

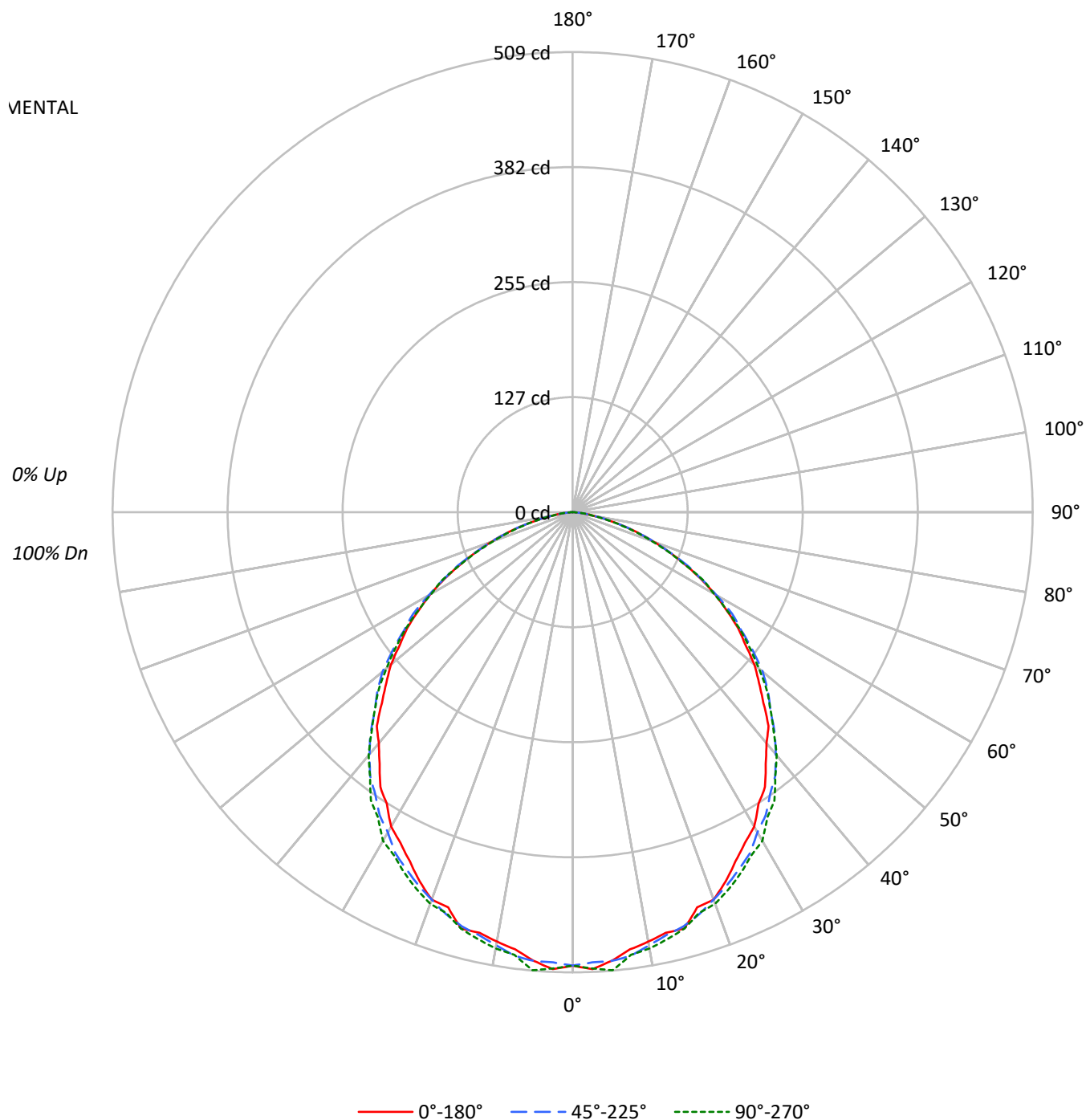
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	1350	1350	1350
5°	1345	1346	1374
10°	1318	1329	1339
15°	1328	1321	1329
20°	1306	1306	1320
25°	1266	1293	1308
30°	1248	1270	1304
35°	1219	1251	1279
40°	1172	1228	1233
45°	1136	1176	1178
50°	1099	1148	1127
55°	1047	1067	1060
60°	979	989	971
65°	873	895	867
70°	749	751	731
75°	593	592	569
80°	397	386	372
85°	216	213	201

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 1207 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.2	3.7
10°-20°	133.7	10.6
20°-30°	200.3	15.8
30°-40°	237.4	18.8
40°-50°	237.8	18.8
50°-60°	201.9	16.0
60°-70°	136.1	10.8
70°-80°	59.8	4.7
80°-90°	9.7	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°	381.2	30.2
0°-40°	618.6	48.9
0°-60°	1058.3	83.7
0°-90°	1264.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1264.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	498	497	498	497	509	47
15°	477	471	474	477	477	133
25°	426	429	436	441	440	197
35°	371	372	381	390	389	230
45°	298	304	309	317	310	231
55°	223	222	228	226	226	198
65°	137	135	141	135	136	136
75°	57	56	57	53	55	61
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°	501.5	501.5	501.5	501.5	501.5
2.5°	505.9	502.0	498.5	502.6	505.1
5°	498.0	496.8	498.2	496.7	508.6
7.5°	487.7	492.2	494.8	493.2	493.9
10°	482.3	480.7	486.5	490.5	489.9
12.5°	476.5	478.8	479.1	483.5	483.8
15°	476.8	471.3	474.2	476.7	476.9
17.5°	458.3	464.2	466.2	471.9	464.9
20°	456.0	451.7	456.0	461.8	460.9
22.5°	442.1	437.2	446.5	451.7	451.3
25°	426.3	428.6	435.6	441.3	440.4
27.5°	412.4	415.1	425.1	432.9	427.9
30°	401.7	400.4	408.8	415.8	419.7
32.5°	382.6	387.6	397.4	404.3	400.6
35°	371.0	372.1	380.8	389.6	389.3
37.5°	350.8	355.9	368.0	370.5	368.2
40°	333.5	338.6	349.5	352.2	351.1
42.5°	320.7	321.6	331.0	334.1	329.2
45°	298.5	304.1	309.1	317.1	309.6
47.5°	279.6	282.2	293.1	295.2	291.3
50°	262.4	263.4	274.3	271.6	269.1
52.5°	240.9	244.7	250.9	250.3	247.3
55°	223.1	221.7	227.5	225.9	225.9
57.5°	201.8	204.4	209.2	206.8	202.8
60°	181.9	182.0	183.7	180.9	180.4
62.5°	159.7	160.5	160.9	157.4	163.0
65°	137.1	135.3	140.6	135.2	136.1
67.5°	116.3	117.2	116.7	113.3	114.6
70°	95.2	96.4	95.5	91.7	92.9
72.5°	75.9	74.5	75.4	70.6	72.8
75°	57.0	55.9	56.9	52.9	54.7
77.5°	38.9	39.8	39.1	37.0	38.2
80°	25.6	24.9	24.9	23.7	24.0
82.5°	15.0	14.2	14.1	13.7	14.2
85°	7.0	6.8	6.9	6.7	6.5
87.5°	2.5	2.6	2.6	2.5	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)