

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: P589975

Luminaire Tested: FSR-24-2-LD4-1LO-40-UNV-80-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589975
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-80-86-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

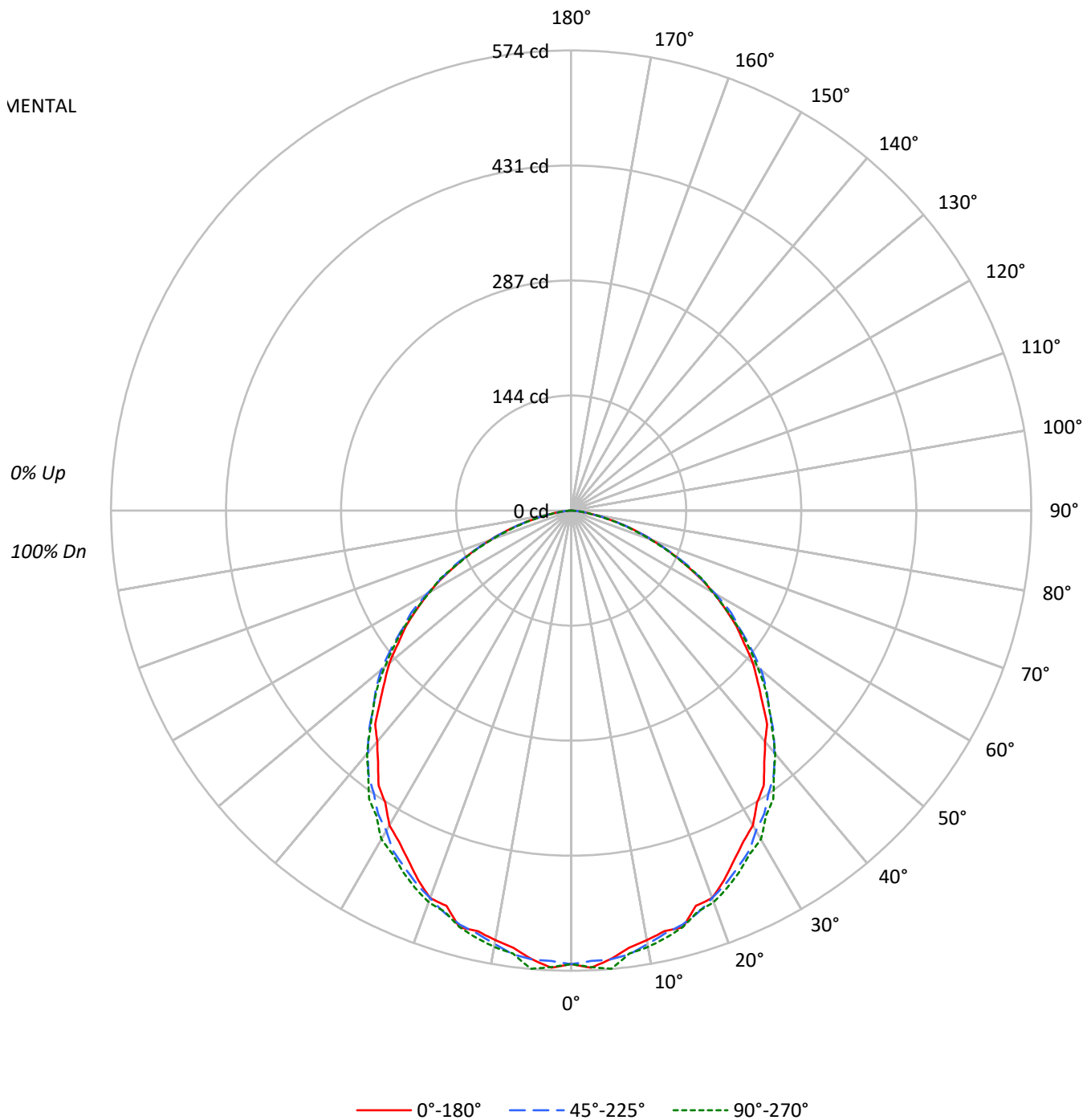
Lumens per Lamp: N/A
Luminaire Lumens: 1426.0 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1523	1523	1523
5°	1518	1518	1550
10°	1487	1500	1510
15°	1499	1490	1499
20°	1473	1473	1489
25°	1428	1459	1475
30°	1408	1433	1471
35°	1375	1411	1443
40°	1322	1385	1391
45°	1282	1327	1329
50°	1240	1296	1271
55°	1181	1204	1195
60°	1104	1116	1095
65°	985	1010	978
70°	845	848	825
75°	670	667	642
80°	448	435	418
85°	244	241	225

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1361 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.2	3.7
10°-20°	150.8	10.6
20°-30°	226.0	15.8
30°-40°	267.8	18.8
40°-50°	268.3	18.8
50°-60°	227.8	16.0
60°-70°	153.6	10.8
70°-80°	67.5	4.7
80°-90°	11.0	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°	430.0	30.2
0°-40°	697.9	48.9
0°-60°	1194.0	83.7
0°-90°	1426.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1426.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	562	560	562	560	574	53
15°	538	532	535	538	538	150
25°	481	484	491	498	497	222
35°	419	420	430	440	439	260
45°	337	343	349	358	349	261
55°	252	250	257	255	255	224
65°	155	153	159	152	154	154
75°	64	63	64	60	62	69
85°	8	8	8	8	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	565.8	565.8	565.8	565.8	565.8
2.5°	570.7	566.4	562.4	567.0	569.9
5°	561.8	560.5	562.0	560.3	573.8
7.5°	550.2	555.3	558.2	556.4	557.2
10°	544.1	542.4	548.9	553.4	552.7
12.5°	537.5	540.2	540.5	545.4	545.9
15°	537.9	531.7	535.0	537.7	538.0
17.5°	517.0	523.7	526.0	532.3	524.5
20°	514.4	509.5	514.4	520.9	519.9
22.5°	498.7	493.3	503.8	509.5	509.2
25°	480.9	483.5	491.4	497.9	496.8
27.5°	465.3	468.3	479.6	488.4	482.7
30°	453.2	451.7	461.2	469.1	473.5
32.5°	431.7	437.2	448.3	456.1	452.0
35°	418.6	419.8	429.6	439.5	439.2
37.5°	395.7	401.5	415.2	417.9	415.4
40°	376.2	382.0	394.3	397.3	396.1
42.5°	361.8	362.9	373.5	376.9	371.4
45°	336.8	343.1	348.8	357.7	349.3
47.5°	315.4	318.4	330.6	333.1	328.6
50°	296.1	297.1	309.5	306.5	303.5
52.5°	271.8	276.1	283.0	282.4	279.0
55°	251.7	250.1	256.6	254.9	254.8
57.5°	227.7	230.6	236.0	233.3	228.8
60°	205.2	205.3	207.3	204.1	203.5
62.5°	180.2	181.0	181.5	177.6	183.9
65°	154.7	152.6	158.6	152.5	153.6
67.5°	131.2	132.2	131.6	127.8	129.3
70°	107.4	108.7	107.8	103.4	104.8
72.5°	85.6	84.0	85.0	79.6	82.1
75°	64.4	63.0	64.2	59.7	61.7
77.5°	43.8	44.9	44.1	41.7	43.1
80°	28.9	28.1	28.1	26.7	27.0
82.5°	16.9	16.1	15.9	15.4	16.1
85°	7.9	7.7	7.8	7.6	7.3
87.5°	2.8	2.9	2.9	2.8	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)