

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: P590522

Luminaire Tested: FSR-24-2-LD4-3LO-35-UNV-80-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590522
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-LD4-3LO-35-UNV-80-94-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

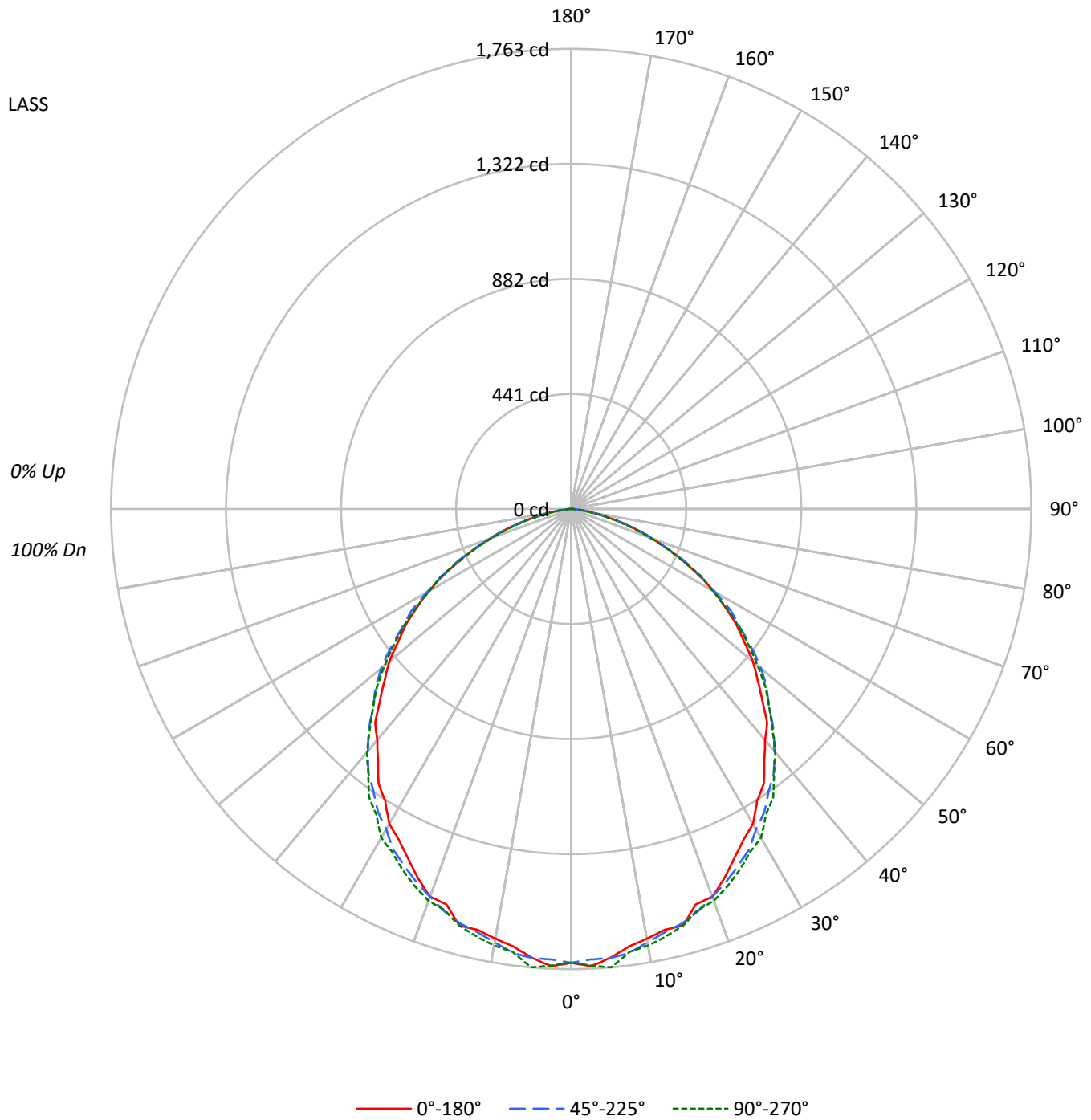
Lumens per Lamp: N/A
Luminaire Lumens: 4381.0 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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																		
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	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°	4678	4678	4678
5°	4662	4664	4762
10°	4568	4608	4640
15°	4604	4579	4605
20°	4526	4526	4574
25°	4387	4483	4532
30°	4327	4403	4520
35°	4225	4335	4433
40°	4060	4256	4275
45°	3938	4078	4083
50°	3808	3980	3904
55°	3628	3699	3673
60°	3393	3427	3365
65°	3025	3103	3004
70°	2596	2604	2532
75°	2056	2051	1971
80°	1378	1339	1286
85°	747	741	692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 4183 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.5	3.7
10°-20°	463.4	10.6
20°-30°	694.3	15.8
30°-40°	822.9	18.8
40°-50°	824.4	18.8
50°-60°	699.8	16.0
60°-70°	471.8	10.8
70°-80°	207.3	4.7
80°-90°	33.7	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°	1321.2	30.2
0°-40°	2144.1	48.9
0°-60°	3668.2	83.7
0°-90°	4381.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4381.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1738	1738	1738	1738	1738	
5°	1726	1722	1727	1721	1763	163
15°	1652	1634	1644	1652	1653	460
25°	1478	1486	1510	1530	1526	683
35°	1286	1290	1320	1350	1349	798
45°	1035	1054	1072	1099	1073	800
55°	773	768	788	783	783	688
65°	475	469	487	469	472	473
75°	198	194	197	183	190	212
85°	24	24	24	23	22	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1738.3	1738.3	1738.3	1738.3	1738.3
2.5°	1753.3	1740.1	1727.7	1742.1	1750.8
5°	1725.9	1721.9	1726.6	1721.4	1763.0
7.5°	1690.5	1706.0	1714.9	1709.3	1711.8
10°	1671.6	1666.2	1686.2	1700.1	1698.1
12.5°	1651.4	1659.5	1660.6	1675.7	1677.0
15°	1652.5	1633.5	1643.6	1652.1	1652.8
17.5°	1588.3	1609.0	1616.0	1635.5	1611.2
20°	1580.5	1565.5	1580.5	1600.5	1597.3
22.5°	1532.2	1515.4	1547.7	1565.5	1564.3
25°	1477.5	1485.6	1509.8	1529.5	1526.4
27.5°	1429.4	1438.9	1473.4	1500.6	1483.1
30°	1392.4	1387.7	1416.9	1441.1	1454.6
32.5°	1326.2	1343.3	1377.4	1401.4	1388.6
35°	1286.0	1289.8	1319.7	1350.2	1349.3
37.5°	1215.8	1233.5	1275.5	1284.0	1276.2
40°	1155.9	1173.6	1211.5	1220.7	1216.9
42.5°	1111.6	1114.8	1147.3	1157.9	1141.0
45°	1034.7	1054.0	1071.5	1099.1	1073.0
47.5°	969.1	978.1	1015.8	1023.2	1009.5
50°	909.6	912.8	950.7	941.5	932.5
52.5°	834.9	848.2	869.5	867.7	857.1
55°	773.4	768.3	788.4	783.1	782.8
57.5°	699.6	708.5	725.2	716.6	702.9
60°	630.4	630.7	636.7	627.1	625.3
62.5°	553.5	556.2	557.5	545.6	564.9
65°	475.1	468.9	487.3	468.6	471.8
67.5°	403.1	406.2	404.4	392.8	397.3
70°	329.9	334.0	331.0	317.8	321.8
72.5°	263.0	258.1	261.2	244.6	252.3
75°	197.7	193.7	197.3	183.4	189.6
77.5°	134.7	137.8	135.6	128.2	132.4
80°	88.9	86.4	86.4	82.1	83.0
82.5°	51.8	49.4	48.7	47.4	49.4
85°	24.2	23.6	24.0	23.3	22.4
87.5°	8.8	9.0	9.0	8.5	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)