

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: P590582

Luminaire Tested: FSR-24-2-LD4-3LO-50-UNV-80-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590582
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-50-UNV-80-85-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4401.0 lumens
Efficiency: N/A
Efficacy: 125.4 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

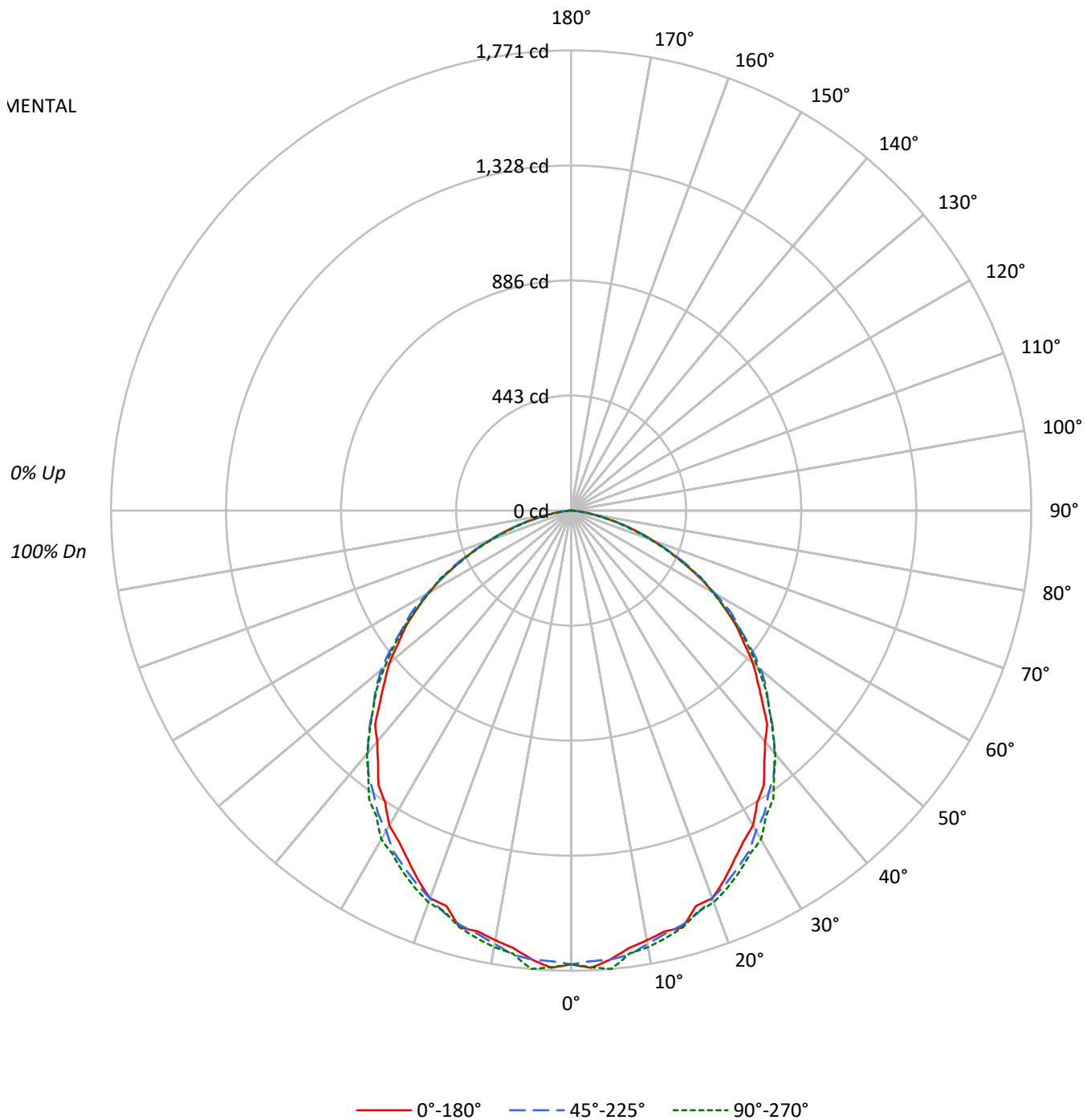
Input Watts (W): 35.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									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°	4699	4699	4699
5°	4683	4685	4784
10°	4588	4629	4661
15°	4625	4600	4625
20°	4547	4547	4595
25°	4407	4503	4553
30°	4346	4423	4540
35°	4244	4355	4453
40°	4079	4275	4294
45°	3956	4096	4102
50°	3826	3998	3922
55°	3645	3716	3689
60°	3408	3442	3380
65°	3039	3117	3018
70°	2607	2617	2544
75°	2065	2061	1981
80°	1384	1345	1292
85°	750	744	695

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 4202 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.3	3.7
10°-20°	465.5	10.6
20°-30°	697.5	15.8
30°-40°	826.6	18.8
40°-50°	828.2	18.8
50°-60°	703.0	16.0
60°-70°	473.9	10.8
70°-80°	208.2	4.7
80°-90°	33.8	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°	1327.2	30.2
0°-40°	2153.8	48.9
0°-60°	3685.0	83.7
0°-90°	4401.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4401.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1746	1746	1746	1746	1746	
5°	1734	1730	1734	1729	1771	163
15°	1660	1641	1651	1660	1660	463
25°	1484	1492	1517	1536	1533	686
35°	1292	1296	1326	1356	1356	802
45°	1039	1059	1076	1104	1078	804
55°	777	772	792	787	786	691
65°	477	471	490	471	474	475
75°	199	195	198	184	190	213
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°	1746.2	1746.2	1746.2	1746.2	1746.2
2.5°	1761.3	1748.0	1735.6	1750.0	1758.8
5°	1733.8	1729.7	1734.5	1729.3	1771.0
7.5°	1698.2	1713.7	1722.8	1717.1	1719.6
10°	1679.2	1673.8	1693.9	1707.9	1705.8
12.5°	1659.0	1667.1	1668.2	1683.3	1684.7
15°	1660.1	1640.9	1651.1	1659.6	1660.3
17.5°	1595.6	1616.3	1623.3	1642.9	1618.6
20°	1587.7	1572.6	1587.7	1607.8	1604.6
22.5°	1539.2	1522.3	1554.8	1572.6	1571.5
25°	1484.2	1492.3	1516.7	1536.5	1533.4
27.5°	1436.0	1445.4	1480.2	1507.4	1489.9
30°	1398.8	1394.0	1423.3	1447.7	1461.2
32.5°	1332.3	1349.4	1383.7	1407.8	1394.9
35°	1291.9	1295.7	1325.7	1356.4	1355.5
37.5°	1221.3	1239.1	1281.3	1289.9	1282.0
40°	1161.1	1178.9	1217.0	1226.3	1222.5
42.5°	1116.7	1119.9	1152.6	1163.2	1146.3
45°	1039.4	1058.8	1076.4	1104.1	1077.9
47.5°	973.5	982.6	1020.4	1027.9	1014.1
50°	913.8	917.0	955.1	945.8	936.8
52.5°	838.7	852.0	873.4	871.6	861.0
55°	776.9	771.8	792.0	786.6	786.4
57.5°	702.8	711.8	728.5	719.9	706.1
60°	633.3	633.5	639.6	629.9	628.1
62.5°	556.0	558.7	560.0	548.1	567.5
65°	477.3	471.0	489.5	470.8	473.9
67.5°	404.9	408.1	406.3	394.6	399.1
70°	331.4	335.5	332.6	319.3	323.3
72.5°	264.2	259.3	262.4	245.8	253.4
75°	198.6	194.6	198.2	184.2	190.5
77.5°	135.3	138.4	136.2	128.7	133.0
80°	89.3	86.8	86.8	82.5	83.4
82.5°	52.1	49.6	48.9	47.6	49.6
85°	24.3	23.7	24.1	23.4	22.5
87.5°	8.8	9.0	9.0	8.6	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)