

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: P560182

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560182
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-2-LD4-2HI-35-UNV-80-87-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2936.0 lumens
Efficiency: N/A
Efficacy: 68.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

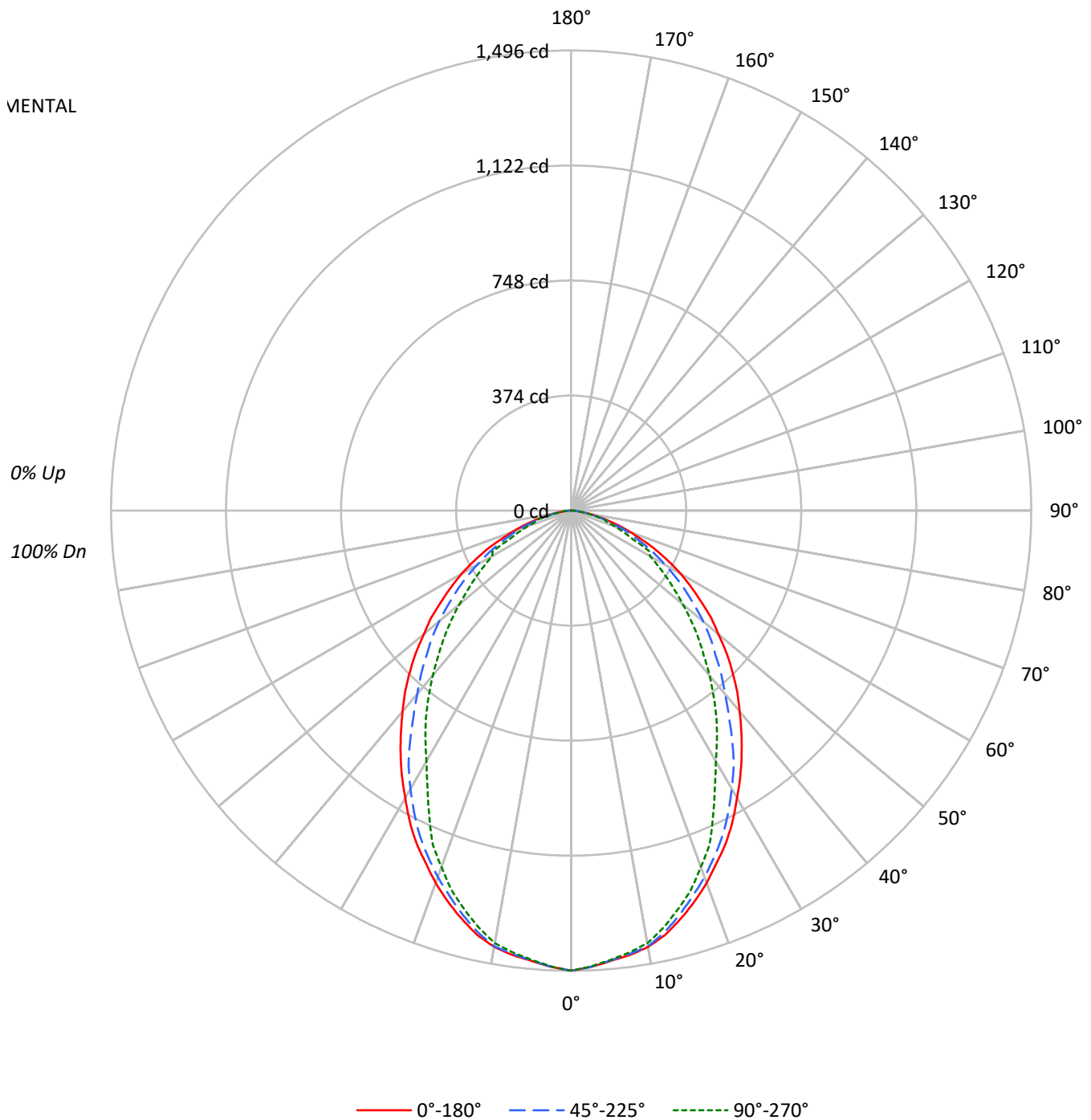
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P560182

CATALOG NUMBER: FSR-12-2-LD4-2HI-35-UNV-80-87-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P560182

CATALOG NUMBER: FSR-12-2-LD4-2HI-35-UNV-80-87-EDD-90

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	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8049	8049	8049
5°	7940	7930	7921
10°	7871	7861	7805
15°	7658	7582	7476
20°	7377	7258	7061
25°	7074	6920	6489
30°	6705	6490	5845
35°	6350	5998	5407
40°	5989	5466	4919
45°	5645	5053	4448
50°	5226	4690	3966
55°	4834	4251	3552
60°	4429	3796	3183
65°	3897	3325	2818
70°	3210	2911	2393
75°	2554	2229	2337
80°	1714	1609	1500
85°	1068	1278	1494

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5645 cd/sqm



TEST NUMBER: P560182

CATALOG NUMBER: FSR-12-2-LD4-2HI-35-UNV-80-87-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.2	4.7
10°-20°	382.1	13.0
20°-30°	528.9	18.0
30°-40°	564.0	19.2
40°-50°	514.5	17.5
50°-60°	403.1	13.7
60°-70°	262.7	8.9
70°-80°	116.4	4.0
80°-90°	25.0	0.9
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°	1050.2	35.8
0°-40°	1614.2	55.0
0°-60°	2531.9	86.2
0°-90°	2936.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2936.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1496	1496	1496	1496	1496	
5°	1470	1468	1468	1466	1466	140
15°	1374	1374	1361	1347	1342	386
25°	1191	1184	1165	1124	1093	547
35°	966	960	913	844	823	604
45°	742	726	664	609	584	571
55°	515	500	453	399	379	462
65°	306	289	261	266	221	302
75°	123	114	107	102	112	132
85°	17	19	21	22	24	24
90°	0	0	0	0	0	



TEST NUMBER: P560182

CATALOG NUMBER: FSR-12-2-LD4-2HI-35-UNV-80-87-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1495.6	1495.6	1495.6	1495.6	1495.6
2.5°	1485.2	1485.2	1485.2	1483.5	1483.5
5°	1469.6	1467.9	1467.9	1466.2	1466.2
7.5°	1457.5	1455.8	1454.1	1452.3	1448.9
10°	1440.2	1440.2	1438.5	1429.9	1428.1
12.5°	1412.6	1410.8	1403.9	1391.8	1388.4
15°	1374.5	1374.5	1360.7	1346.9	1341.7
17.5°	1333.0	1331.3	1314.0	1300.2	1293.3
20°	1288.1	1284.6	1267.3	1244.9	1232.8
22.5°	1237.9	1237.9	1217.2	1187.8	1175.7
25°	1191.3	1184.3	1165.3	1123.8	1092.7
27.5°	1137.7	1127.3	1106.5	1047.8	1011.4
30°	1078.9	1073.7	1044.3	968.2	940.6
32.5°	1023.6	1014.9	983.8	904.3	881.8
35°	966.5	959.6	912.9	843.7	823.0
37.5°	909.4	900.8	842.0	786.7	760.7
40°	852.4	842.0	778.0	727.9	700.2
42.5°	798.8	785.0	722.7	669.1	638.0
45°	741.7	726.2	663.9	608.6	584.4
47.5°	684.7	670.8	613.8	556.7	529.1
50°	624.2	612.1	560.2	503.1	473.7
52.5°	574.0	555.0	504.9	447.8	423.6
55°	515.2	499.7	453.0	399.4	378.6
57.5°	461.6	446.1	402.9	352.7	335.4
60°	411.5	389.0	352.7	309.5	295.7
62.5°	356.2	338.9	307.8	271.4	288.7
65°	306.0	288.7	261.1	266.3	221.3
67.5°	250.7	242.1	217.9	193.6	186.7
70°	204.0	193.6	185.0	159.1	152.1
72.5°	162.5	152.1	140.0	126.2	121.0
75°	122.8	114.1	107.2	102.0	112.4
77.5°	84.7	81.3	76.1	70.9	69.2
80°	55.3	53.6	51.9	50.1	48.4
82.5°	32.9	32.9	32.9	32.9	32.9
85°	17.3	19.0	20.7	22.5	24.2
87.5°	10.4	10.4	12.1	13.8	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)