

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: P560326

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-81-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560326
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-50-UNV-81-87-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2979.0 lumens
Efficiency: N/A
Efficacy: 69.0 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

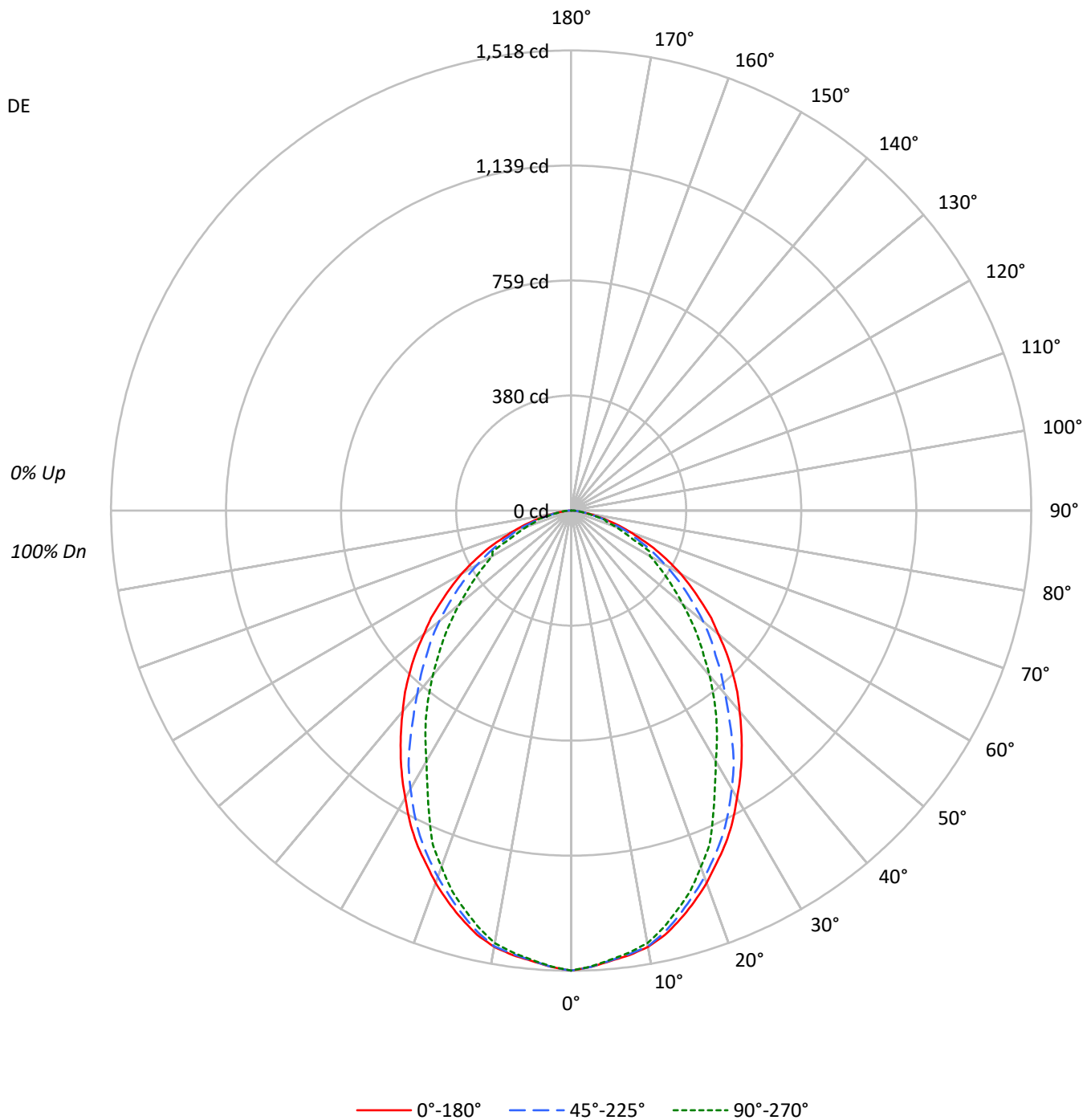
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P560326

CATALOG NUMBER: FSR-12-2-LD4-2HI-50-UNV-81-87-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P560326

CATALOG NUMBER: FSR-12-2-LD4-2HI-50-UNV-81-87-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°	8167	8167	8167
5°	8056	8047	8037
10°	7986	7977	7919
15°	7771	7692	7585
20°	7485	7365	7164
25°	7178	7021	6584
30°	6803	6585	5931
35°	6443	6086	5486
40°	6076	5546	4992
45°	5728	5127	4513
50°	5303	4759	4025
55°	4906	4312	3605
60°	4494	3852	3229
65°	3954	3373	2859
70°	3257	2954	2430
75°	2591	2262	2371
80°	1739	1630	1522
85°	1081	1303	1519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5728 cd/sqm



TEST NUMBER: P560326

CATALOG NUMBER: FSR-12-2-LD4-2HI-50-UNV-81-87-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.3	4.7
10°-20°	387.7	13.0
20°-30°	536.7	18.0
30°-40°	572.3	19.2
40°-50°	522.1	17.5
50°-60°	409.0	13.7
60°-70°	266.6	8.9
70°-80°	118.1	4.0
80°-90°	25.3	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°	1065.6	35.8
0°-40°	1637.9	55.0
0°-60°	2569.0	86.2
0°-90°	2979.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2979.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1518	1518	1518	1518	1518	
5°	1491	1489	1489	1488	1488	142
15°	1395	1395	1381	1367	1361	392
25°	1209	1202	1182	1140	1109	555
35°	981	974	926	856	835	613
45°	753	737	674	618	593	580
55°	523	507	460	405	384	469
65°	310	293	265	270	224	306
75°	125	116	109	104	114	134
85°	18	19	21	23	25	24
90°	0	0	0	0	0	



TEST NUMBER: P560326

CATALOG NUMBER: FSR-12-2-LD4-2HI-50-UNV-81-87-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1517.5	1517.5	1517.5	1517.5	1517.5
2.5°	1506.9	1506.9	1506.9	1505.2	1505.2
5°	1491.1	1489.4	1489.4	1487.6	1487.6
7.5°	1478.9	1477.1	1475.4	1473.6	1470.1
10°	1461.3	1461.3	1459.6	1450.8	1449.0
12.5°	1433.3	1431.5	1424.5	1412.2	1408.7
15°	1394.7	1394.7	1380.6	1366.6	1361.3
17.5°	1352.6	1350.8	1333.3	1319.2	1312.2
20°	1306.9	1303.4	1285.9	1263.1	1250.8
22.5°	1256.1	1256.1	1235.0	1205.2	1192.9
25°	1208.7	1201.7	1182.4	1140.3	1108.7
27.5°	1154.3	1143.8	1122.7	1063.1	1026.3
30°	1094.7	1089.4	1059.6	982.4	954.3
32.5°	1038.5	1029.8	998.2	917.5	894.7
35°	980.6	973.6	926.3	856.1	835.0
37.5°	922.8	914.0	854.3	798.2	771.9
40°	864.9	854.3	789.4	738.6	710.5
42.5°	810.5	796.4	733.3	678.9	647.3
45°	752.6	736.8	673.6	617.5	593.0
47.5°	694.7	680.7	622.8	564.9	536.8
50°	633.3	621.0	568.4	510.5	480.7
52.5°	582.4	563.1	512.3	454.4	429.8
55°	522.8	507.0	459.6	405.2	384.2
57.5°	468.4	452.6	408.8	357.9	340.3
60°	417.5	394.7	357.9	314.0	300.0
62.5°	361.4	343.8	312.3	275.4	293.0
65°	310.5	293.0	264.9	270.2	224.5
67.5°	254.4	245.6	221.0	196.5	189.5
70°	207.0	196.5	187.7	161.4	154.4
72.5°	164.9	154.4	142.1	128.1	122.8
75°	124.6	115.8	108.8	103.5	114.0
77.5°	86.0	82.5	77.2	71.9	70.2
80°	56.1	54.4	52.6	50.9	49.1
82.5°	33.3	33.3	33.3	33.3	33.3
85°	17.5	19.3	21.1	22.8	24.6
87.5°	10.5	10.5	12.3	14.0	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)