

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: P560180

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-80-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560180
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-80-86-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3034.0 lumens
Efficiency: N/A
Efficacy: 70.2 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

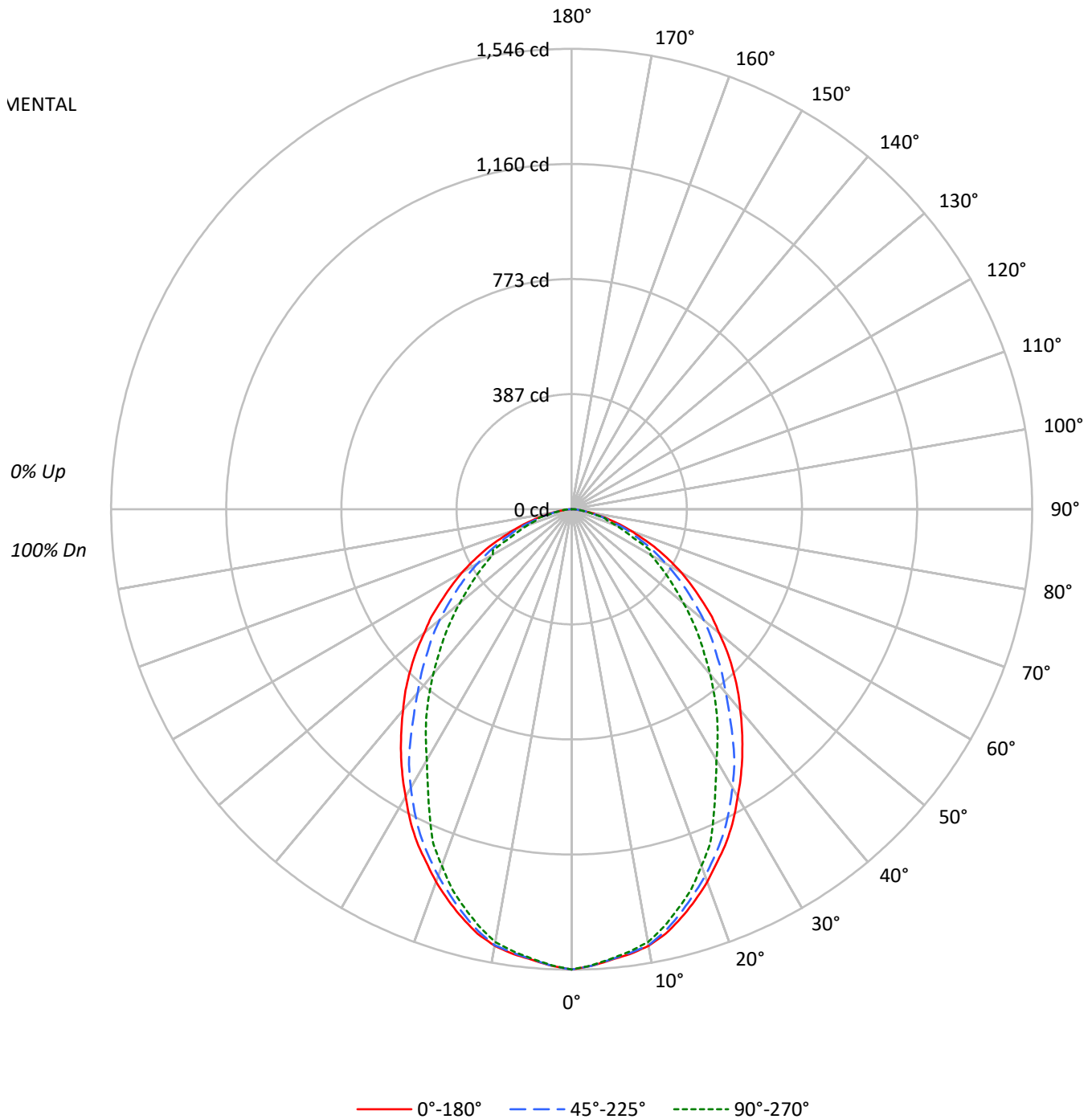
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8318	8318	8318
5°	8205	8195	8185
10°	8134	8124	8065
15°	7914	7835	7725
20°	7624	7501	7296
25°	7310	7151	6706
30°	6929	6707	6041
35°	6562	6198	5588
40°	6188	5649	5084
45°	5834	5222	4596
50°	5400	4847	4099
55°	4996	4392	3672
60°	4577	3923	3288
65°	4027	3436	2912
70°	3317	3009	2474
75°	2639	2304	2414
80°	1773	1661	1550
85°	1105	1321	1544

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5834 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.9	4.7
10°-20°	394.8	13.0
20°-30°	546.6	18.0
30°-40°	582.8	19.2
40°-50°	531.7	17.5
50°-60°	416.6	13.7
60°-70°	271.5	8.9
70°-80°	120.3	4.0
80°-90°	25.8	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°	1085.3	35.8
0°-40°	1668.1	55.0
0°-60°	2616.4	86.2
0°-90°	3034.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3034.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1546	1546	1546	1546	1546	
5°	1519	1517	1517	1515	1515	144
15°	1420	1420	1406	1392	1386	399
25°	1231	1224	1204	1161	1129	565
35°	999	992	943	872	850	624
45°	766	750	686	629	604	590
55°	532	516	468	413	391	478
65°	316	298	270	275	229	312
75°	127	118	111	105	116	136
85°	18	20	21	23	25	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1545.5	1545.5	1545.5	1545.5	1545.5
2.5°	1534.8	1534.8	1534.8	1533.0	1533.0
5°	1518.7	1516.9	1516.9	1515.1	1515.1
7.5°	1506.2	1504.4	1502.6	1500.8	1497.2
10°	1488.3	1488.3	1486.5	1477.6	1475.8
12.5°	1459.7	1457.9	1450.8	1438.3	1434.7
15°	1420.4	1420.4	1406.1	1391.8	1386.5
17.5°	1377.5	1375.7	1357.9	1343.6	1336.4
20°	1331.1	1327.5	1309.6	1286.4	1273.9
22.5°	1279.3	1279.3	1257.8	1227.4	1214.9
25°	1231.0	1223.9	1204.2	1161.3	1129.2
27.5°	1175.6	1164.9	1143.5	1082.7	1045.2
30°	1114.9	1109.5	1079.2	1000.5	972.0
32.5°	1057.7	1048.8	1016.6	934.4	911.2
35°	998.8	991.6	943.4	871.9	850.5
37.5°	939.8	930.9	870.1	812.9	786.1
40°	880.8	870.1	804.0	752.2	723.6
42.5°	825.4	811.2	746.8	691.4	659.3
45°	766.5	750.4	686.1	628.9	603.9
47.5°	707.5	693.2	634.3	575.3	546.7
50°	645.0	632.5	578.9	519.9	489.6
52.5°	593.2	573.5	521.7	462.8	437.7
55°	532.4	516.4	468.1	412.7	391.3
57.5°	477.0	461.0	416.3	364.5	346.6
60°	425.2	402.0	364.5	319.8	305.5
62.5°	368.1	350.2	318.0	280.5	298.4
65°	316.2	298.4	269.8	275.1	228.7
67.5°	259.1	250.1	225.1	200.1	193.0
70°	210.8	200.1	191.2	164.4	157.2
72.5°	167.9	157.2	144.7	130.4	125.1
75°	126.9	117.9	110.8	105.4	116.1
77.5°	87.5	84.0	78.6	73.3	71.5
80°	57.2	55.4	53.6	51.8	50.0
82.5°	33.9	33.9	33.9	33.9	33.9
85°	17.9	19.7	21.4	23.2	25.0
87.5°	10.7	10.7	12.5	14.3	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)