

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: P560254

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-80-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560254
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-40-UNV-80-97-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3035.0 lumens
Efficiency: N/A
Efficacy: 70.3 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

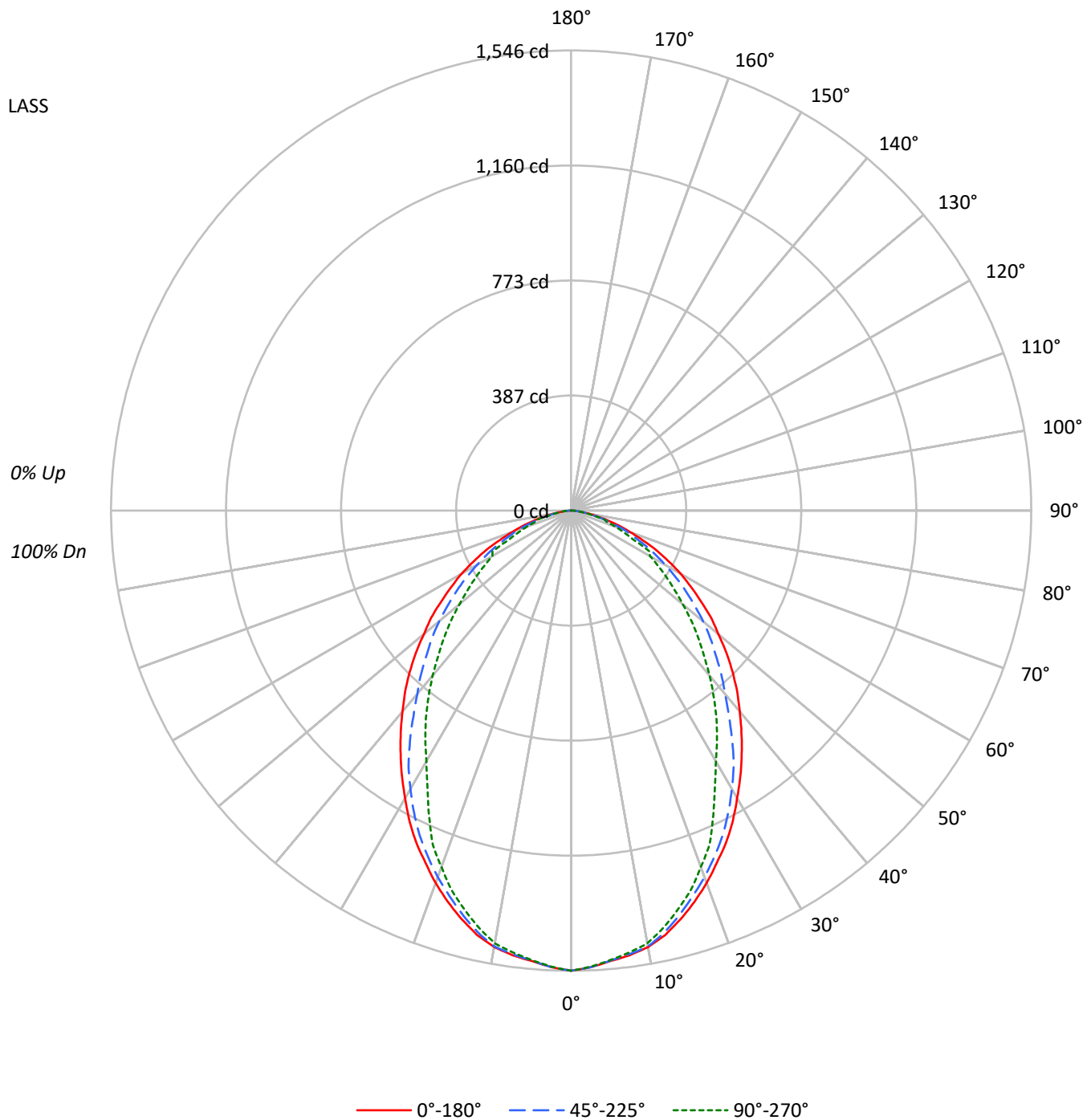
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8321	8321	8321
5°	8208	8198	8188
10°	8136	8126	8068
15°	7917	7837	7728
20°	7626	7503	7298
25°	7312	7153	6708
30°	6931	6709	6042
35°	6564	6200	5589
40°	6190	5651	5085
45°	5836	5224	4598
50°	5402	4849	4100
55°	4997	4394	3673
60°	4579	3925	3289
65°	4028	3437	2914
70°	3319	3009	2475
75°	2639	2304	2416
80°	1773	1661	1550
85°	1105	1321	1544

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5836 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.9	4.7
10°-20°	395.0	13.0
20°-30°	546.8	18.0
30°-40°	583.0	19.2
40°-50°	531.9	17.5
50°-60°	416.7	13.7
60°-70°	271.6	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°	1085.6	35.8
0°-40°	1668.7	55.0
0°-60°	2617.3	86.2
0°-90°	3035.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3035.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1546	1546	1546	1546	1546	
5°	1519	1517	1517	1516	1516	144
15°	1421	1421	1407	1392	1387	399
25°	1231	1224	1205	1162	1130	565
35°	999	992	944	872	851	625
45°	767	751	686	629	604	591
55°	533	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°	1546.0	1546.0	1546.0	1546.0	1546.0
2.5°	1535.3	1535.3	1535.3	1533.5	1533.5
5°	1519.2	1517.4	1517.4	1515.6	1515.6
7.5°	1506.7	1504.9	1503.1	1501.3	1497.7
10°	1488.8	1488.8	1487.0	1478.1	1476.3
12.5°	1460.2	1458.4	1451.3	1438.8	1435.2
15°	1420.9	1420.9	1406.6	1392.3	1386.9
17.5°	1378.0	1376.2	1358.3	1344.0	1336.9
20°	1331.5	1327.9	1310.1	1286.8	1274.3
22.5°	1279.7	1279.7	1258.2	1227.9	1215.3
25°	1231.4	1224.3	1204.6	1161.7	1129.6
27.5°	1176.0	1165.3	1143.9	1083.1	1045.6
30°	1115.3	1109.9	1079.5	1000.9	972.3
32.5°	1058.1	1049.1	1017.0	934.7	911.5
35°	999.1	991.9	943.7	872.2	850.7
37.5°	940.1	931.2	870.4	813.2	786.4
40°	881.1	870.4	804.3	752.4	723.8
42.5°	825.7	811.4	747.1	691.7	659.5
45°	766.7	750.7	686.3	629.1	604.1
47.5°	707.8	693.5	634.5	575.5	546.9
50°	645.2	632.7	579.1	520.1	489.7
52.5°	593.4	573.7	521.9	462.9	437.9
55°	532.6	516.5	468.3	412.9	391.4
57.5°	477.2	461.1	416.4	364.6	346.7
60°	425.4	402.1	364.6	319.9	305.6
62.5°	368.2	350.3	318.1	280.6	298.5
65°	316.3	298.5	269.9	275.2	228.8
67.5°	259.2	250.2	225.2	200.2	193.0
70°	210.9	200.2	191.2	164.4	157.3
72.5°	168.0	157.3	144.8	130.5	125.1
75°	126.9	118.0	110.8	105.4	116.2
77.5°	87.6	84.0	78.6	73.3	71.5
80°	57.2	55.4	53.6	51.8	50.0
82.5°	34.0	34.0	34.0	34.0	34.0
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)