

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: P563387

Luminaire Tested: FSR-24-4-LD4-3LO-50-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563387
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-24-4-LD4-3LO-50-UNV-80-94-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

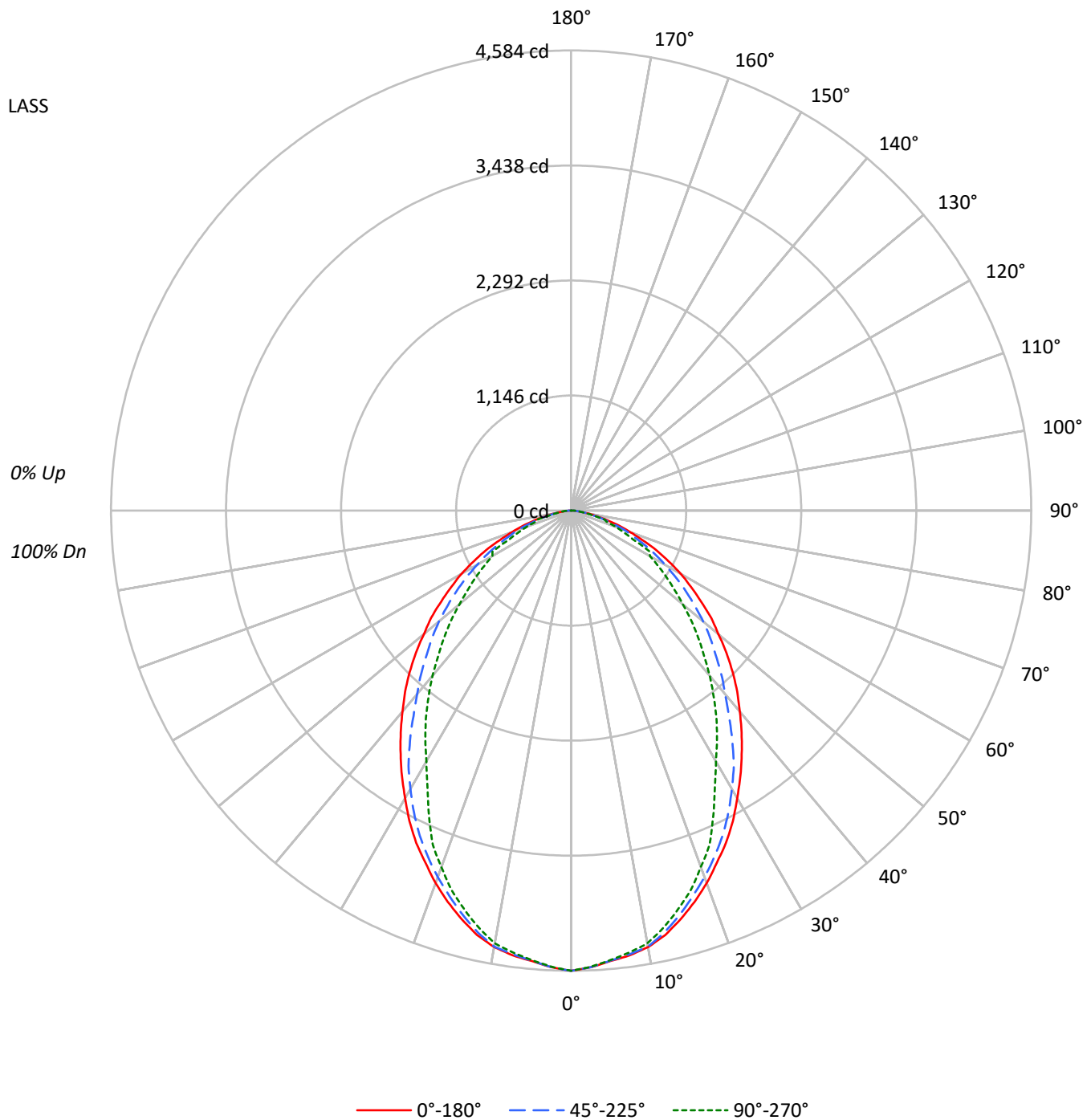
Lumens per Lamp: N/A
Luminaire Lumens: 9000.0 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	6168	6168	6168
5°	6085	6077	6070
10°	6032	6025	5981
15°	5869	5810	5729
20°	5654	5563	5411
25°	5421	5303	4973
30°	5138	4974	4479
35°	4866	4596	4144
40°	4589	4189	3770
45°	4326	3873	3409
50°	4005	3594	3040
55°	3705	3257	2723
60°	3394	2909	2439
65°	2987	2548	2160
70°	2460	2231	1835
75°	1956	1708	1791
80°	1314	1232	1150
85°	818	982	1145

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4326 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	426.8	4.7
10°-20°	1171.2	13.0
20°-30°	1621.4	18.0
30°-40°	1728.9	19.2
40°-50°	1577.3	17.5
50°-60°	1235.7	13.7
60°-70°	805.4	8.9
70°-80°	356.8	4.0
80°-90°	76.6	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°	3219.4	35.8
0°-40°	4948.3	55.0
0°-60°	7761.3	86.2
0°-90°	9000.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9000.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4584	4584	4584	4584	4584	
5°	4505	4500	4500	4494	4494	428
15°	4214	4214	4171	4129	4113	1185
25°	3652	3630	3572	3445	3350	1676
35°	2963	2942	2798	2586	2523	1852
45°	2274	2226	2035	1866	1791	1751
55°	1579	1532	1389	1224	1161	1417
65°	938	885	800	816	678	924
75°	376	350	329	313	344	403
85°	53	58	64	69	74	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4584.5	4584.5	4584.5	4584.5	4584.5
2.5°	4552.7	4552.7	4552.7	4547.4	4547.4
5°	4505.0	4499.7	4499.7	4494.4	4494.4
7.5°	4467.9	4462.6	4457.3	4452.0	4441.4
10°	4414.9	4414.9	4409.6	4383.1	4377.8
12.5°	4330.1	4324.8	4303.6	4266.5	4255.9
15°	4213.5	4213.5	4171.1	4128.7	4112.8
17.5°	4086.3	4081.0	4028.0	3985.6	3964.4
20°	3948.5	3937.9	3884.9	3816.0	3778.9
22.5°	3794.8	3794.8	3731.2	3641.1	3604.0
25°	3651.7	3630.5	3572.2	3445.0	3349.6
27.5°	3487.4	3455.6	3392.0	3211.8	3100.5
30°	3307.2	3291.3	3201.2	2968.0	2883.2
32.5°	3137.6	3111.1	3015.7	2771.9	2703.0
35°	2962.7	2941.5	2798.4	2586.4	2522.8
37.5°	2787.8	2761.3	2581.1	2411.5	2332.0
40°	2612.9	2581.1	2385.0	2231.3	2146.5
42.5°	2448.6	2406.2	2215.4	2051.1	1955.7
45°	2273.7	2226.0	2035.2	1865.6	1791.4
47.5°	2098.8	2056.4	1881.5	1706.6	1621.8
50°	1913.3	1876.2	1717.2	1542.3	1452.2
52.5°	1759.6	1701.3	1547.6	1372.7	1298.5
55°	1579.4	1531.7	1388.6	1224.3	1160.7
57.5°	1415.1	1367.4	1234.9	1081.2	1028.2
60°	1261.4	1192.5	1081.2	948.7	906.3
62.5°	1091.8	1038.8	943.4	832.1	885.1
65°	938.1	885.1	800.3	816.2	678.4
67.5°	768.5	742.0	667.8	593.6	572.4
70°	625.4	593.6	567.1	487.6	466.4
72.5°	498.2	466.4	429.3	386.9	371.0
75°	376.3	349.8	328.6	312.7	344.5
77.5°	259.7	249.1	233.2	217.3	212.0
80°	169.6	164.3	159.0	153.7	148.4
82.5°	100.7	100.7	100.7	100.7	100.7
85°	53.0	58.3	63.6	68.9	74.2
87.5°	31.8	31.8	37.1	42.4	47.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)