

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: P562683

Luminaire Tested: FSR-24-4-LD4-2LO-35-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562683
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-LD4-2LO-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5842.0 lumens
Efficiency: N/A
Efficacy: 124.8 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

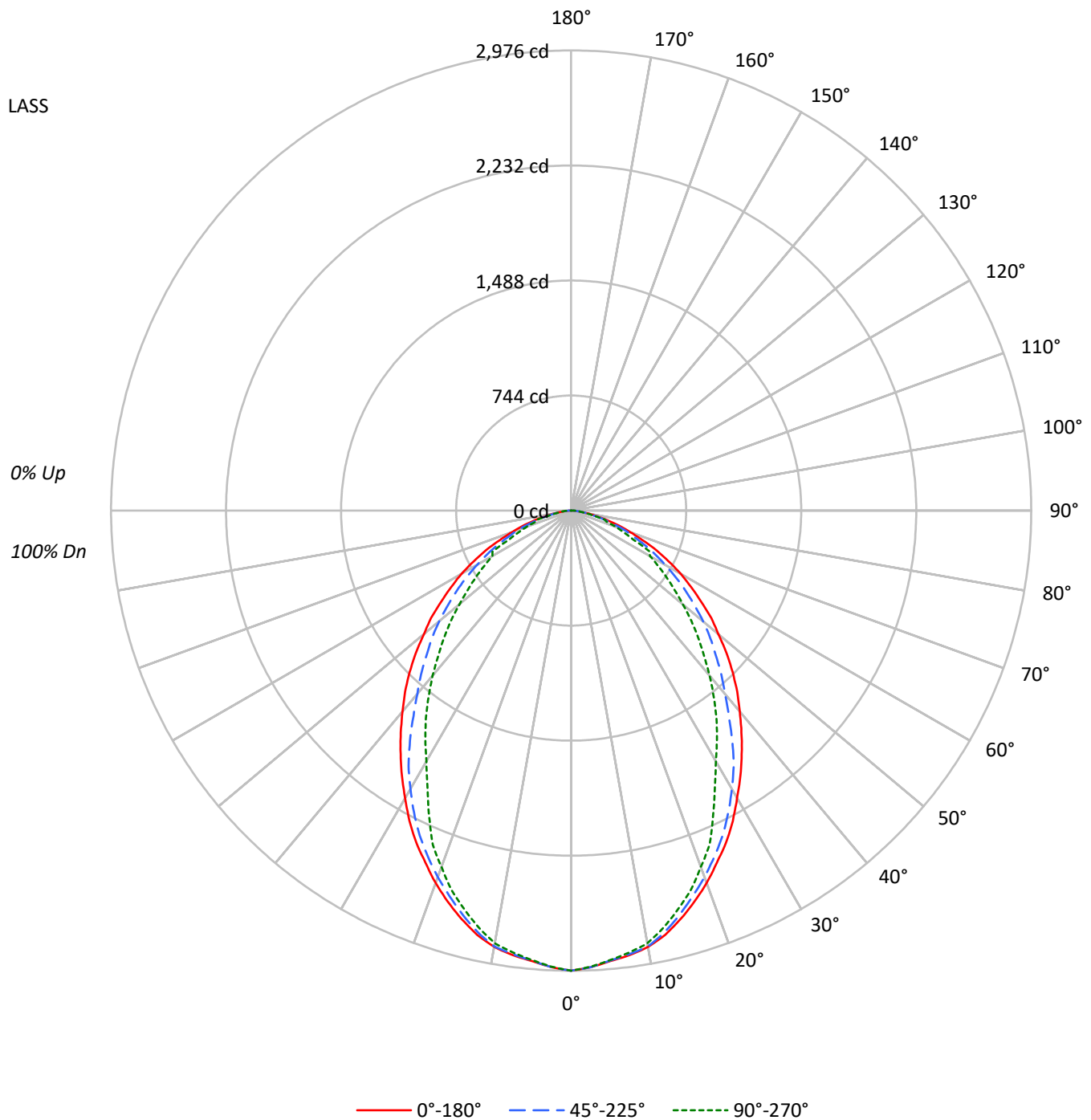
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562683

CATALOG NUMBER: FSR-24-4-LD4-2LO-35-UNV-80-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P562683

CATALOG NUMBER: FSR-24-4-LD4-2LO-35-UNV-80-94-EDD

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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					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°	4004	4004	4004
5°	3950	3945	3940
10°	3915	3911	3882
15°	3810	3771	3719
20°	3670	3611	3512
25°	3519	3442	3228
30°	3335	3228	2908
35°	3159	2984	2690
40°	2979	2719	2447
45°	2808	2514	2213
50°	2600	2333	1973
55°	2405	2114	1767
60°	2203	1889	1583
65°	1939	1654	1402
70°	1597	1448	1191
75°	1270	1109	1162
80°	853	800	746
85°	531	638	744

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2808 cd/sqm



TEST NUMBER: P562683

CATALOG NUMBER: FSR-24-4-LD4-2LO-35-UNV-80-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.0	4.7
10°-20°	760.2	13.0
20°-30°	1052.5	18.0
30°-40°	1122.3	19.2
40°-50°	1023.8	17.5
50°-60°	802.1	13.7
60°-70°	522.8	8.9
70°-80°	231.6	4.0
80°-90°	49.7	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°	2089.7	35.8
0°-40°	3212.0	55.0
0°-60°	5037.9	86.2
0°-90°	5842.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5842.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2976	2976	2976	2976	2976	
5°	2924	2921	2921	2917	2917	278
15°	2735	2735	2708	2680	2670	769
25°	2370	2357	2319	2236	2174	1088
35°	1923	1909	1816	1679	1638	1202
45°	1476	1445	1321	1211	1163	1137
55°	1025	994	901	795	753	920
65°	609	574	520	530	440	600
75°	244	227	213	203	224	262
85°	34	38	41	45	48	48
90°	0	0	0	0	0	



TEST NUMBER: P562683

CATALOG NUMBER: FSR-24-4-LD4-2LO-35-UNV-80-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2975.8	2975.8	2975.8	2975.8	2975.8
2.5°	2955.2	2955.2	2955.2	2951.8	2951.8
5°	2924.2	2920.8	2920.8	2917.4	2917.4
7.5°	2900.2	2896.7	2893.3	2889.8	2882.9
10°	2865.7	2865.7	2862.3	2845.1	2841.7
12.5°	2810.7	2807.3	2793.5	2769.4	2762.5
15°	2735.0	2735.0	2707.5	2680.0	2669.7
17.5°	2652.5	2649.0	2614.6	2587.1	2573.3
20°	2563.0	2556.1	2521.7	2477.0	2452.9
22.5°	2463.2	2463.2	2422.0	2363.5	2339.4
25°	2370.3	2356.6	2318.7	2236.2	2174.3
27.5°	2263.7	2243.1	2201.8	2084.8	2012.6
30°	2146.7	2136.4	2077.9	1926.6	1871.5
32.5°	2036.6	2019.4	1957.5	1799.3	1754.5
35°	1923.1	1909.4	1816.5	1678.9	1637.6
37.5°	1809.6	1792.4	1675.4	1565.3	1513.7
40°	1696.1	1675.4	1548.1	1448.4	1393.3
42.5°	1589.4	1561.9	1438.0	1331.4	1269.5
45°	1475.9	1444.9	1321.1	1211.0	1162.8
47.5°	1362.3	1334.8	1221.3	1107.8	1052.7
50°	1241.9	1217.9	1114.6	1001.1	942.6
52.5°	1142.2	1104.3	1004.6	891.0	842.9
55°	1025.2	994.2	901.4	794.7	753.4
57.5°	918.6	887.6	801.6	701.8	667.4
60°	818.8	774.1	701.8	615.8	588.3
62.5°	708.7	674.3	612.4	540.1	574.5
65°	608.9	574.5	519.5	529.8	440.4
67.5°	498.8	481.6	433.5	385.3	371.5
70°	406.0	385.3	368.1	316.5	302.7
72.5°	323.4	302.7	278.7	251.1	240.8
75°	244.3	227.1	213.3	203.0	223.6
77.5°	168.6	161.7	151.4	141.1	137.6
80°	110.1	106.6	103.2	99.8	96.3
82.5°	65.4	65.4	65.4	65.4	65.4
85°	34.4	37.8	41.3	44.7	48.2
87.5°	20.6	20.6	24.1	27.5	31.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)