

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: P590344

Luminaire Tested: FSR-24-2-LD4-2STD-35-UNV-82-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590344
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-2STD-35-UNV-82-87-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3403.0 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

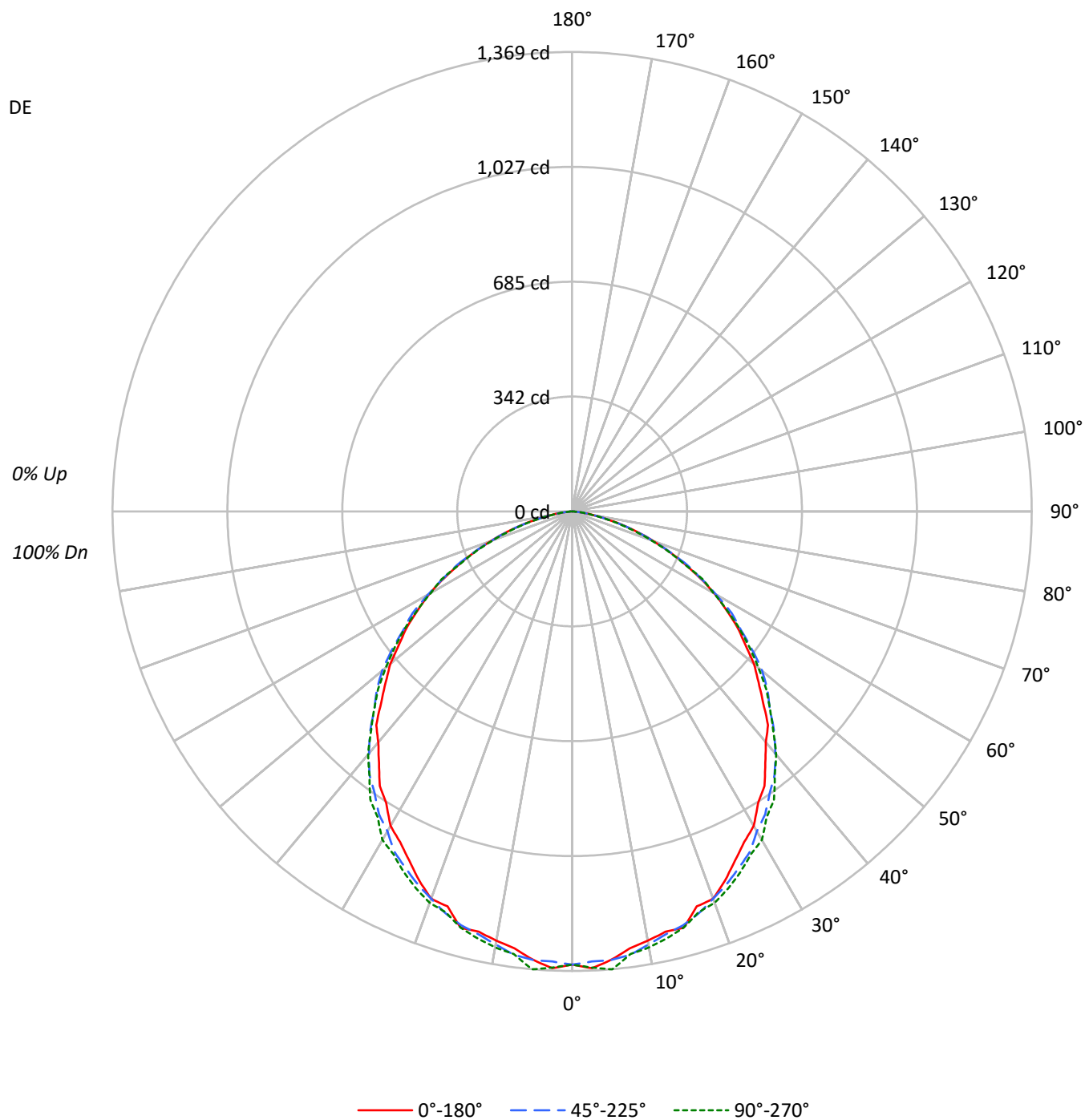
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86		
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73		
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62		
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53		
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46		
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41		
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36		
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32		
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29		
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3633	3633	3633
5°	3621	3623	3699
10°	3548	3579	3604
15°	3576	3557	3577
20°	3516	3516	3553
25°	3407	3482	3521
30°	3361	3420	3511
35°	3281	3368	3443
40°	3154	3306	3320
45°	3059	3167	3172
50°	2958	3092	3033
55°	2819	2873	2853
60°	2636	2662	2614
65°	2350	2410	2334
70°	2017	2023	1967
75°	1597	1593	1531
80°	1069	1040	1000
85°	580	577	537

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 3249 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.0	3.7
10°-20°	360.0	10.6
20°-30°	539.3	15.8
30°-40°	639.2	18.8
40°-50°	640.4	18.8
50°-60°	543.6	16.0
60°-70°	366.5	10.8
70°-80°	161.0	4.7
80°-90°	26.2	0.8
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°	1026.3	30.2
0°-40°	1665.4	48.9
0°-60°	2849.4	83.7
0°-90°	3403.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3403.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1350	1350	1350	1350	1350	
5°	1341	1338	1341	1337	1369	126
15°	1284	1269	1277	1283	1284	358
25°	1148	1154	1173	1188	1186	531
35°	999	1002	1025	1049	1048	620
45°	804	819	832	854	834	622
55°	601	597	612	608	608	534
65°	369	364	378	364	366	367
75°	154	150	153	142	147	165
85°	19	18	19	18	17	27
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1350.2	1350.2	1350.2	1350.2	1350.2
2.5°	1361.9	1351.6	1342.0	1353.2	1360.0
5°	1340.6	1337.5	1341.2	1337.1	1369.4
7.5°	1313.1	1325.1	1332.1	1327.7	1329.7
10°	1298.4	1294.3	1309.8	1320.6	1319.0
12.5°	1282.8	1289.0	1289.9	1301.6	1302.6
15°	1283.6	1268.8	1276.7	1283.3	1283.8
17.5°	1233.8	1249.8	1255.2	1270.4	1251.6
20°	1227.7	1216.0	1227.7	1243.2	1240.7
22.5°	1190.2	1177.1	1202.2	1216.0	1215.1
25°	1147.6	1153.9	1172.8	1188.1	1185.7
27.5°	1110.3	1117.7	1144.5	1165.6	1152.0
30°	1081.6	1077.9	1100.6	1119.4	1129.9
32.5°	1030.1	1043.4	1069.9	1088.5	1078.6
35°	998.9	1001.9	1025.1	1048.8	1048.1
37.5°	944.4	958.1	990.7	997.4	991.3
40°	897.8	911.6	941.1	948.2	945.2
42.5°	863.5	865.9	891.2	899.4	886.3
45°	803.7	818.7	832.3	853.7	833.5
47.5°	752.8	759.8	789.0	794.8	784.2
50°	706.6	709.0	738.5	731.3	724.4
52.5°	648.5	658.8	675.4	674.0	665.8
55°	600.8	596.7	612.4	608.3	608.1
57.5°	543.4	550.4	563.3	556.7	546.0
60°	489.7	489.9	494.6	487.1	485.7
62.5°	429.9	432.0	433.0	423.8	438.8
65°	369.1	364.2	378.5	364.0	366.5
67.5°	313.1	315.5	314.2	305.1	308.6
70°	256.3	259.4	257.1	246.9	250.0
72.5°	204.3	200.5	202.9	190.0	196.0
75°	153.6	150.5	153.2	142.4	147.3
77.5°	104.6	107.0	105.3	99.5	102.9
80°	69.0	67.1	67.1	63.8	64.5
82.5°	40.3	38.4	37.8	36.8	38.4
85°	18.8	18.3	18.7	18.1	17.4
87.5°	6.8	7.0	7.0	6.6	6.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)