

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: P590025

Luminaire Tested: FSR-24-2-LD4-1LO-50-UNV-82-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590025
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-LD4-1LO-50-UNV-82-88-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

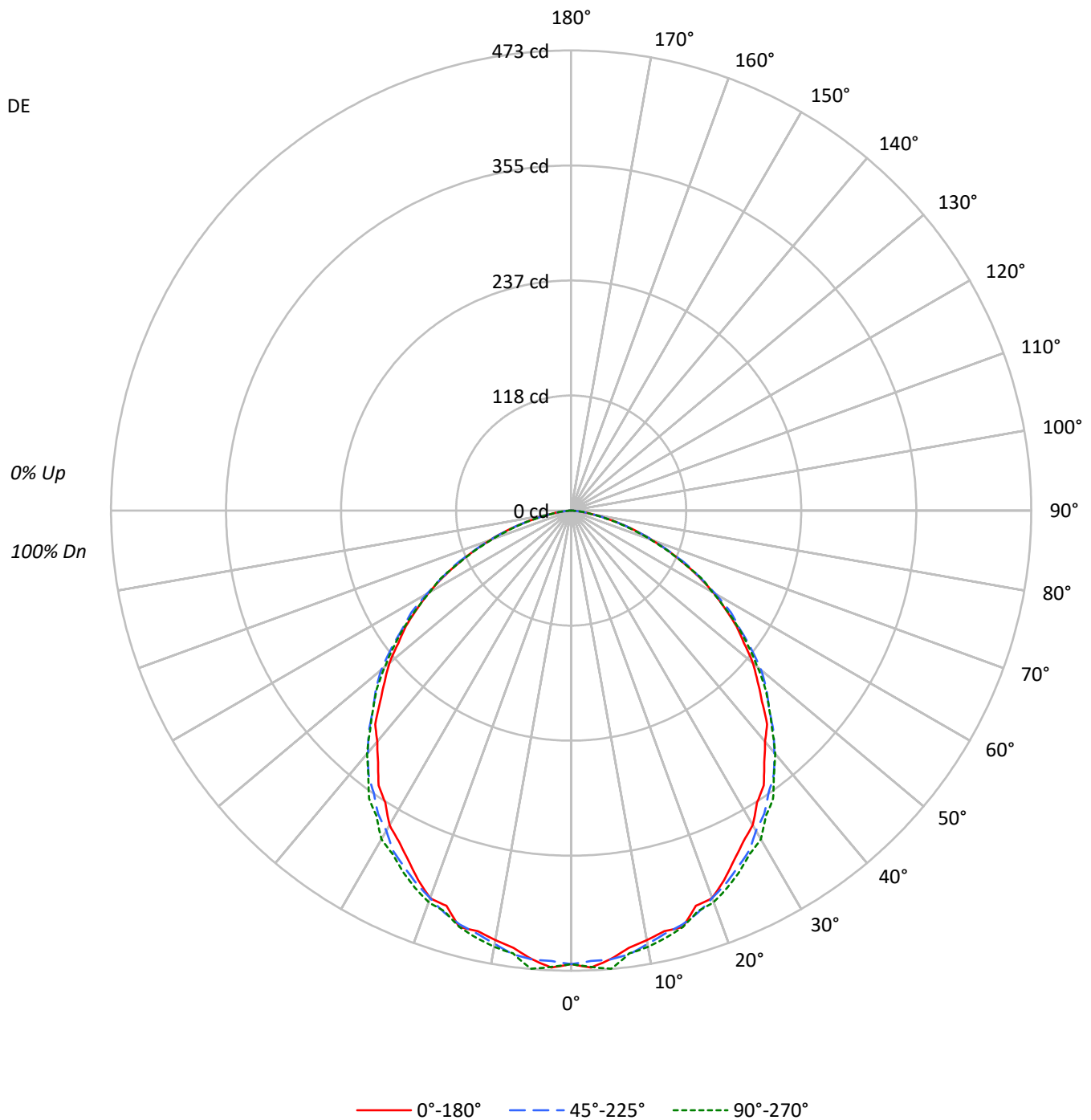
Lumens per Lamp: N/A
Luminaire Lumens: 1175.0 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	0
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°	1255	1255	1255
5°	1250	1251	1277
10°	1225	1236	1244
15°	1235	1228	1235
20°	1214	1214	1227
25°	1177	1202	1216
30°	1160	1181	1212
35°	1133	1163	1189
40°	1089	1141	1147
45°	1056	1094	1095
50°	1021	1068	1047
55°	973	992	985
60°	910	919	903
65°	811	832	805
70°	696	699	679
75°	551	550	529
80°	369	360	346
85°	201	198	185

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1122 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.9	3.7
10°-20°	124.3	10.6
20°-30°	186.2	15.8
30°-40°	220.7	18.8
40°-50°	221.1	18.8
50°-60°	187.7	16.0
60°-70°	126.5	10.8
70°-80°	55.6	4.7
80°-90°	9.0	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°	354.4	30.2
0°-40°	575.0	48.9
0°-60°	983.8	83.7
0°-90°	1175.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1175.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	466	466	466	466	466	
5°	463	462	463	462	473	44
15°	443	438	441	443	443	123
25°	396	398	405	410	409	183
35°	345	346	354	362	362	214
45°	278	283	287	295	288	215
55°	207	206	212	210	210	185
65°	127	126	131	126	126	127
75°	53	52	53	49	51	57
85°	6	6	6	6	6	9
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	466.2	466.2	466.2	466.2	466.2
2.5°	470.2	466.7	463.4	467.2	469.6
5°	462.9	461.8	463.1	461.7	472.8
7.5°	453.4	457.5	460.0	458.4	459.1
10°	448.3	446.9	452.2	456.0	455.4
12.5°	442.9	445.1	445.4	449.4	449.8
15°	443.2	438.1	440.8	443.1	443.3
17.5°	426.0	431.5	433.4	438.6	432.1
20°	423.9	419.9	423.9	429.3	428.4
22.5°	411.0	406.4	415.1	419.9	419.6
25°	396.3	398.4	404.9	410.2	409.4
27.5°	383.4	385.9	395.2	402.5	397.8
30°	373.4	372.2	380.0	386.5	390.1
32.5°	355.7	360.3	369.4	375.9	372.4
35°	344.9	345.9	353.9	362.1	361.9
37.5°	326.1	330.8	342.1	344.4	342.3
40°	310.0	314.8	324.9	327.4	326.4
42.5°	298.1	299.0	307.7	310.5	306.0
45°	277.5	282.7	287.4	294.8	287.8
47.5°	259.9	262.3	272.4	274.4	270.8
50°	244.0	244.8	255.0	252.5	250.1
52.5°	223.9	227.5	233.2	232.7	229.9
55°	207.4	206.0	211.5	210.0	210.0
57.5°	187.6	190.0	194.5	192.2	188.5
60°	169.1	169.1	170.8	168.2	167.7
62.5°	148.4	149.2	149.5	146.3	151.5
65°	127.4	125.7	130.7	125.7	126.5
67.5°	108.1	109.0	108.5	105.3	106.5
70°	88.5	89.6	88.8	85.2	86.3
72.5°	70.5	69.2	70.1	65.6	67.7
75°	53.0	51.9	52.9	49.2	50.9
77.5°	36.1	37.0	36.4	34.4	35.5
80°	23.8	23.2	23.2	22.0	22.3
82.5°	13.9	13.2	13.1	12.7	13.2
85°	6.5	6.3	6.4	6.3	6.0
87.5°	2.3	2.4	2.4	2.3	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)