

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: P590264

Luminaire Tested: FSR-24-2-LD4-2LO-40-UNV-80-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590264
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-LD4-2LO-40-UNV-80-87-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

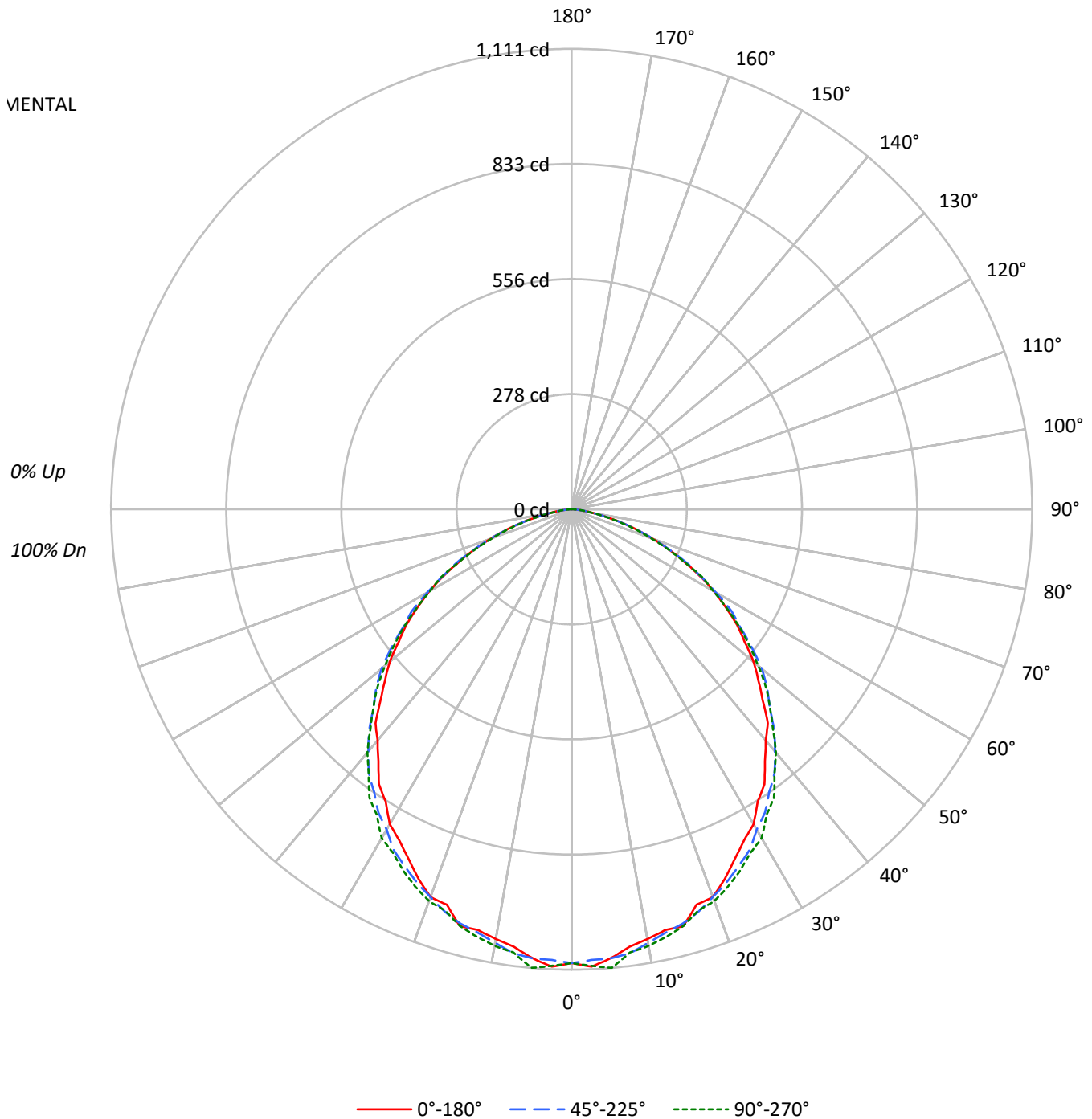
Lumens per Lamp: N/A
Luminaire Lumens: 2760.0 lumens
Efficiency: N/A
Efficacy: 117.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					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°	2947	2947	2947
5°	2937	2938	3000
10°	2878	2903	2923
15°	2900	2885	2901
20°	2851	2851	2882
25°	2764	2824	2855
30°	2726	2774	2848
35°	2662	2731	2793
40°	2558	2681	2693
45°	2481	2569	2573
50°	2399	2507	2460
55°	2286	2330	2314
60°	2138	2159	2120
65°	1906	1955	1892
70°	1635	1641	1596
75°	1295	1292	1242
80°	868	843	810
85°	472	466	435

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2635 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.0	3.7
10°-20°	291.9	10.6
20°-30°	437.4	15.8
30°-40°	518.4	18.8
40°-50°	519.4	18.8
50°-60°	440.8	16.0
60°-70°	297.2	10.8
70°-80°	130.6	4.7
80°-90°	21.2	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°	832.4	30.2
0°-40°	1350.7	48.9
0°-60°	2310.9	83.7
0°-90°	2760.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2760.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1087	1085	1088	1084	1111	103
15°	1041	1029	1035	1041	1041	290
25°	931	936	951	964	962	430
35°	810	813	831	851	850	503
45°	652	664	675	692	676	504
55°	487	484	497	493	493	433
65°	299	295	307	295	297	298
75°	125	122	124	116	120	133
85°	15	15	15	15	14	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1095.1	1095.1	1095.1	1095.1	1095.1
2.5°	1104.6	1096.2	1088.5	1097.5	1103.0
5°	1087.3	1084.8	1087.7	1084.5	1110.7
7.5°	1065.0	1074.7	1080.4	1076.9	1078.4
10°	1053.1	1049.7	1062.3	1071.1	1069.8
12.5°	1040.4	1045.5	1046.2	1055.6	1056.5
15°	1041.1	1029.1	1035.4	1040.8	1041.2
17.5°	1000.6	1013.7	1018.0	1030.3	1015.1
20°	995.7	986.2	995.7	1008.3	1006.3
22.5°	965.3	954.7	975.1	986.2	985.5
25°	930.8	935.9	951.2	963.6	961.6
27.5°	900.5	906.5	928.3	945.4	934.3
30°	877.2	874.2	892.6	907.9	916.4
32.5°	835.5	846.2	867.7	882.9	874.8
35°	810.2	812.6	831.4	850.6	850.1
37.5°	765.9	777.1	803.5	808.9	804.0
40°	728.2	739.4	763.2	769.0	766.6
42.5°	700.3	702.3	722.8	729.5	718.8
45°	651.8	664.0	675.0	692.4	676.0
47.5°	610.5	616.2	640.0	644.6	636.0
50°	573.1	575.1	598.9	593.1	587.5
52.5°	526.0	534.3	547.8	546.6	540.0
55°	487.2	484.0	496.7	493.3	493.2
57.5°	440.7	446.4	456.8	451.5	442.8
60°	397.2	397.3	401.1	395.1	393.9
62.5°	348.7	350.4	351.2	343.7	355.9
65°	299.3	295.4	307.0	295.2	297.2
67.5°	253.9	255.9	254.8	247.4	250.3
70°	207.8	210.4	208.6	200.2	202.8
72.5°	165.7	162.6	164.6	154.1	158.9
75°	124.6	122.0	124.3	115.5	119.5
77.5°	84.8	86.8	85.4	80.7	83.4
80°	56.0	54.4	54.4	51.8	52.3
82.5°	32.7	31.1	30.7	29.8	31.1
85°	15.3	14.8	15.1	14.7	14.1
87.5°	5.5	5.7	5.7	5.4	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)