

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: P590005

Luminaire Tested: FSR-24-2-LD4-1LO-50-UNV-80-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590005
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-80-84-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

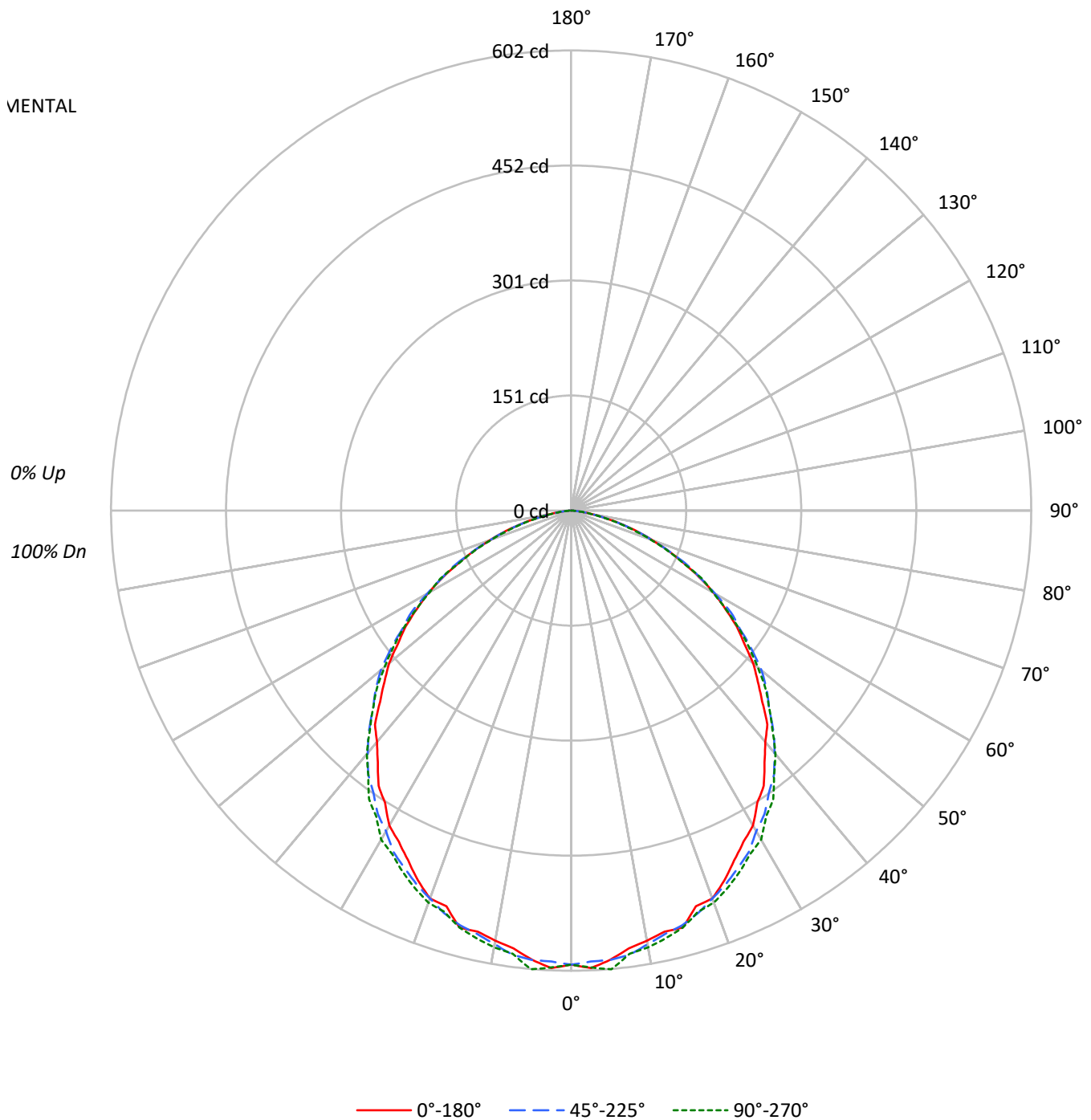
Lumens per Lamp: N/A
Luminaire Lumens: 1497.0 lumens
Efficiency: N/A
Efficacy: 127.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	1598	1598	1598
5°	1593	1594	1627
10°	1561	1574	1585
15°	1573	1565	1573
20°	1547	1547	1563
25°	1499	1532	1549
30°	1478	1505	1544
35°	1443	1481	1515
40°	1388	1454	1461
45°	1345	1393	1396
50°	1301	1360	1334
55°	1240	1264	1255
60°	1159	1171	1150
65°	1034	1060	1026
70°	887	890	865
75°	703	701	674
80°	471	457	440
85°	256	253	238

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1429 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.9	3.7
10°-20°	158.3	10.6
20°-30°	237.2	15.8
30°-40°	281.2	18.8
40°-50°	281.7	18.8
50°-60°	239.1	16.0
60°-70°	161.2	10.8
70°-80°	70.8	4.7
80°-90°	11.5	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°	451.5	30.2
0°-40°	732.6	48.9
0°-60°	1253.4	83.7
0°-90°	1497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1497.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	594	594	594	594	594	
5°	590	588	590	588	602	56
15°	565	558	562	564	565	157
25°	505	508	516	523	522	233
35°	439	441	451	461	461	273
45°	354	360	366	376	367	273
55°	264	262	269	268	268	235
65°	162	160	166	160	161	161
75°	68	66	67	63	65	72
85°	8	8	8	8	8	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	594.0	594.0	594.0	594.0	594.0
2.5°	599.1	594.6	590.4	595.3	598.3
5°	589.8	588.4	590.0	588.2	602.4
7.5°	577.6	582.9	586.0	584.1	584.9
10°	571.2	569.4	576.2	580.9	580.2
12.5°	564.3	567.1	567.4	572.6	573.0
15°	564.7	558.2	561.6	564.5	564.8
17.5°	542.7	549.8	552.2	558.8	550.6
20°	540.1	534.9	540.1	546.9	545.8
22.5°	523.6	517.8	528.9	534.9	534.5
25°	504.9	507.6	515.9	522.6	521.6
27.5°	488.4	491.7	503.5	512.8	506.8
30°	475.8	474.2	484.2	492.4	497.0
32.5°	453.2	459.0	470.7	478.9	474.5
35°	439.4	440.7	450.9	461.4	461.1
37.5°	415.4	421.5	435.8	438.7	436.1
40°	395.0	401.0	414.0	417.1	415.8
42.5°	379.9	380.9	392.0	395.6	389.9
45°	353.5	360.1	366.1	375.6	366.7
47.5°	331.2	334.2	347.1	349.6	345.0
50°	310.8	311.9	324.9	321.7	318.7
52.5°	285.3	289.8	297.1	296.5	292.9
55°	264.3	262.5	269.4	267.6	267.5
57.5°	239.0	242.1	247.8	244.9	240.2
60°	215.4	215.5	217.6	214.3	213.7
62.5°	189.1	190.0	190.5	186.4	193.0
65°	162.4	160.2	166.5	160.1	161.2
67.5°	137.7	138.8	138.2	134.2	135.7
70°	112.7	114.1	113.1	108.6	110.0
72.5°	89.9	88.2	89.3	83.6	86.2
75°	67.6	66.2	67.4	62.7	64.8
77.5°	46.0	47.1	46.3	43.8	45.2
80°	30.4	29.5	29.5	28.1	28.4
82.5°	17.7	16.9	16.6	16.2	16.9
85°	8.3	8.1	8.2	8.0	7.7
87.5°	3.0	3.1	3.1	2.9	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)