

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: P589978

Luminaire Tested: FSR-24-2-LD4-1LO-40-UNV-80-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589978
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-40-UNV-80-94-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

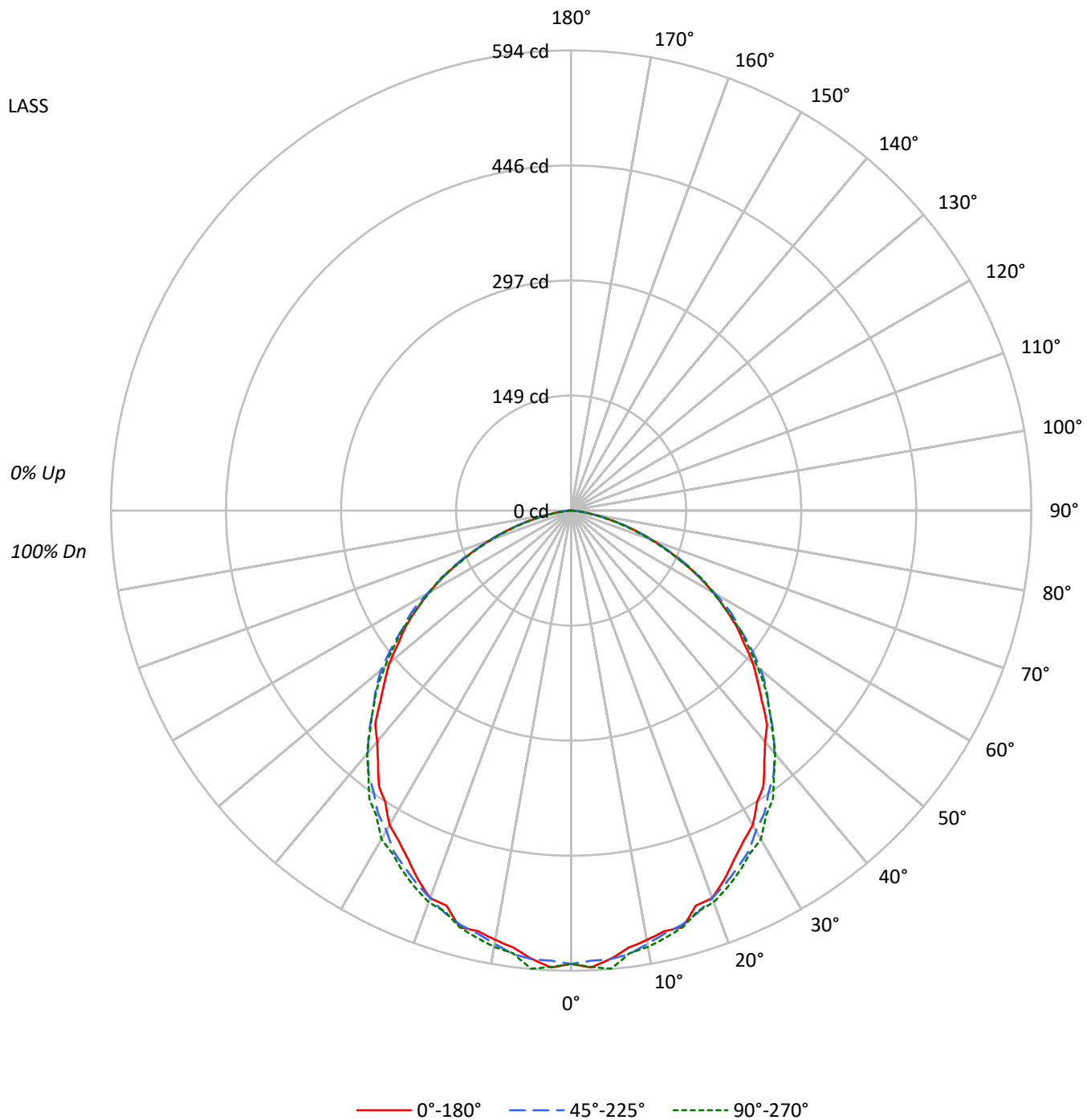
Lumens per Lamp: N/A
Luminaire Lumens: 1475.0 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1575	1575	1575
5°	1570	1570	1603
10°	1538	1551	1562
15°	1550	1542	1550
20°	1524	1524	1540
25°	1477	1509	1526
30°	1457	1482	1522
35°	1422	1460	1492
40°	1367	1433	1439
45°	1325	1373	1375
50°	1282	1340	1315
55°	1222	1246	1237
60°	1143	1154	1133
65°	1019	1044	1011
70°	874	877	853
75°	692	690	664
80°	463	451	434
85°	253	250	235

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1408 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.1	3.7
10°-20°	156.0	10.6
20°-30°	233.8	15.8
30°-40°	277.0	18.8
40°-50°	277.6	18.8
50°-60°	235.6	16.0
60°-70°	158.8	10.8
70°-80°	69.8	4.7
80°-90°	11.3	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°	444.8	30.2
0°-40°	721.9	48.9
0°-60°	1235.0	83.7
0°-90°	1475.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1475.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	581	580	581	580	594	55
15°	556	550	553	556	556	155
25°	497	500	508	515	514	230
35°	433	434	444	455	454	269
45°	348	355	361	370	361	269
55°	260	259	266	264	264	232
65°	160	158	164	158	159	159
75°	67	65	66	62	64	71
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°	585.2	585.2	585.2	585.2	585.2
2.5°	590.3	585.8	581.7	586.5	589.5
5°	581.1	579.7	581.3	579.6	593.6
7.5°	569.1	574.4	577.4	575.5	576.3
10°	562.8	561.0	567.7	572.4	571.7
12.5°	556.0	558.7	559.1	564.2	564.6
15°	556.4	550.0	553.4	556.2	556.5
17.5°	534.8	541.7	544.1	550.6	542.5
20°	532.1	527.1	532.1	538.8	537.8
22.5°	515.9	510.2	521.1	527.1	526.7
25°	497.4	500.2	508.3	515.0	513.9
27.5°	481.3	484.4	496.1	505.2	499.3
30°	468.8	467.2	477.0	485.2	489.7
32.5°	446.5	452.3	463.7	471.8	467.5
35°	433.0	434.3	444.3	454.6	454.3
37.5°	409.3	415.3	429.4	432.3	429.7
40°	389.2	395.1	407.9	411.0	409.7
42.5°	374.3	375.3	386.3	389.8	384.2
45°	348.3	354.8	360.7	370.0	361.3
47.5°	326.3	329.3	342.0	344.5	339.9
50°	306.3	307.3	320.1	317.0	314.0
52.5°	281.1	285.6	292.7	292.1	288.6
55°	260.4	258.7	265.5	263.6	263.6
57.5°	235.5	238.6	244.1	241.3	236.7
60°	212.3	212.3	214.4	211.1	210.5
62.5°	186.3	187.2	187.7	183.7	190.2
65°	160.0	157.9	164.0	157.8	158.8
67.5°	135.7	136.8	136.2	132.2	133.7
70°	111.1	112.4	111.5	107.0	108.4
72.5°	88.6	86.9	88.0	82.4	84.9
75°	66.6	65.2	66.4	61.7	63.9
77.5°	45.3	46.4	45.6	43.1	44.6
80°	29.9	29.1	29.1	27.7	28.0
82.5°	17.5	16.6	16.4	15.9	16.6
85°	8.2	7.9	8.1	7.9	7.6
87.5°	2.9	3.0	3.0	2.9	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)