

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: P559993

Luminaire Tested: FSR-12-2-LD4-1STD-35-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559993
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-2-LD4-1STD-35-UNV-80-88-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1288.0 lumens
Efficiency: N/A
Efficacy: 77.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

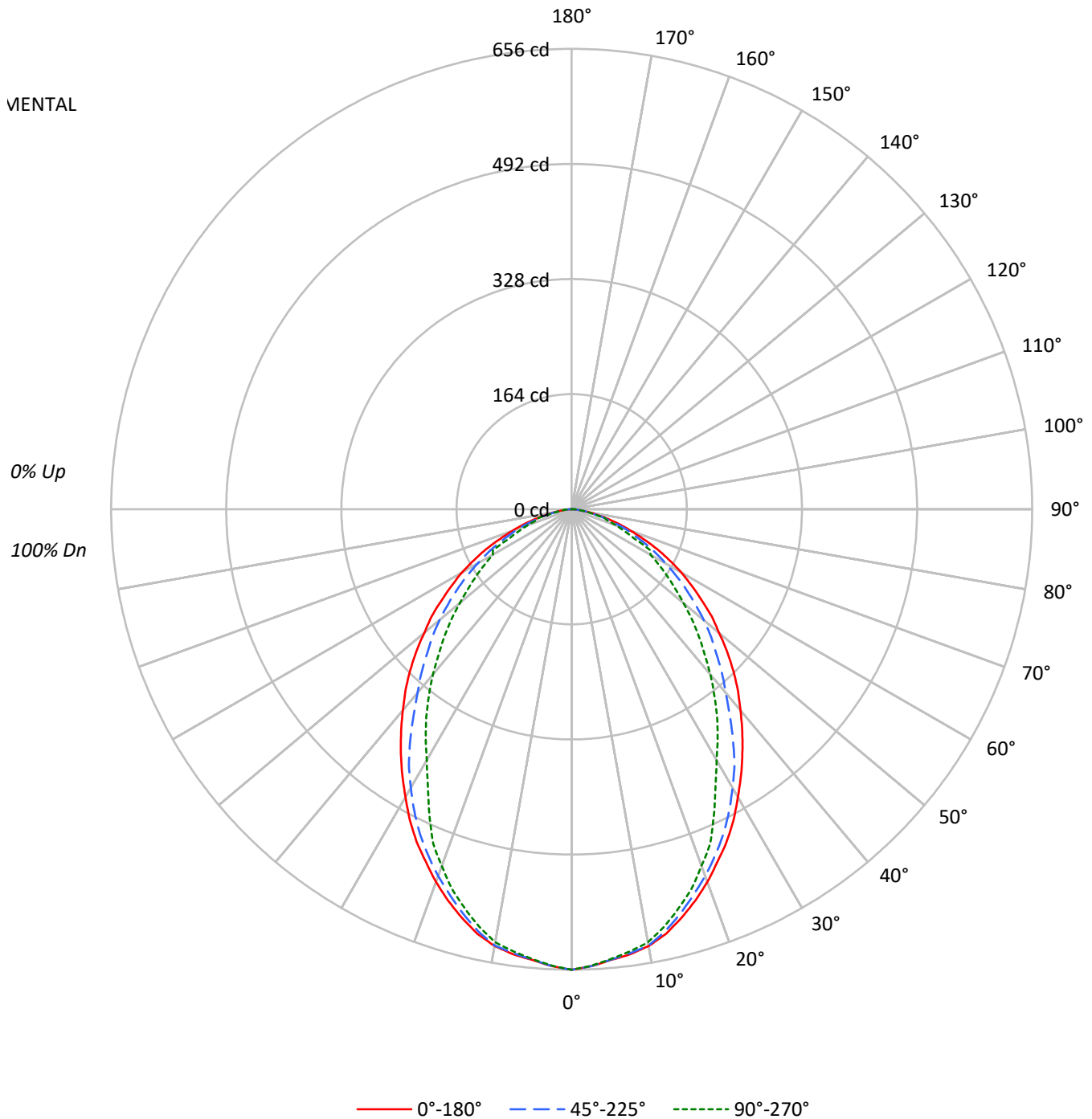
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3531	3531	3531
5°	3483	3479	3475
10°	3453	3449	3424
15°	3360	3326	3280
20°	3237	3184	3097
25°	3103	3036	2847
30°	2941	2847	2564
35°	2786	2631	2372
40°	2627	2398	2158
45°	2477	2217	1952
50°	2292	2057	1740
55°	2121	1864	1559
60°	1943	1665	1396
65°	1710	1458	1237
70°	1408	1278	1050
75°	1121	977	1025
80°	753	707	657
85°	469	562	655

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2477 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.1	4.7
10°-20°	167.6	13.0
20°-30°	232.0	18.0
30°-40°	247.4	19.2
40°-50°	225.7	17.5
50°-60°	176.8	13.7
60°-70°	115.3	8.9
70°-80°	51.1	4.0
80°-90°	11.0	0.9
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°	460.7	35.8
0°-40°	708.2	55.0
0°-60°	1110.7	86.2
0°-90°	1288.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1288.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	656	656	656	656	656	
5°	645	644	644	643	643	61
15°	603	603	597	591	589	170
25°	523	520	511	493	479	240
35°	424	421	400	370	361	265
45°	325	319	291	267	256	251
55°	226	219	199	175	166	203
65°	134	127	114	117	97	132
75°	54	50	47	45	49	58
85°	8	8	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	656.1	656.1	656.1	656.1	656.1
2.5°	651.5	651.5	651.5	650.8	650.8
5°	644.7	644.0	644.0	643.2	643.2
7.5°	639.4	638.6	637.9	637.1	635.6
10°	631.8	631.8	631.1	627.3	626.5
12.5°	619.7	618.9	615.9	610.6	609.1
15°	603.0	603.0	596.9	590.9	588.6
17.5°	584.8	584.0	576.4	570.4	567.3
20°	565.1	563.6	556.0	546.1	540.8
22.5°	543.1	543.1	534.0	521.1	515.8
25°	522.6	519.6	511.2	493.0	479.4
27.5°	499.1	494.5	485.4	459.6	443.7
30°	473.3	471.0	458.1	424.8	412.6
32.5°	449.0	445.2	431.6	396.7	386.8
35°	424.0	421.0	400.5	370.1	361.0
37.5°	399.0	395.2	369.4	345.1	333.7
40°	373.9	369.4	341.3	319.3	307.2
42.5°	350.4	344.4	317.0	293.5	279.9
45°	325.4	318.6	291.3	267.0	256.4
47.5°	300.4	294.3	269.3	244.2	232.1
50°	273.8	268.5	245.7	220.7	207.8
52.5°	251.8	243.5	221.5	196.4	185.8
55°	226.0	219.2	198.7	175.2	166.1
57.5°	202.5	195.7	176.7	154.7	147.1
60°	180.5	170.7	154.7	135.8	129.7
62.5°	156.2	148.7	135.0	119.1	126.7
65°	134.3	126.7	114.5	116.8	97.1
67.5°	110.0	106.2	95.6	85.0	81.9
70°	89.5	85.0	81.2	69.8	66.7
72.5°	71.3	66.7	61.4	55.4	53.1
75°	53.9	50.1	47.0	44.8	49.3
77.5°	37.2	35.6	33.4	31.1	30.3
80°	24.3	23.5	22.8	22.0	21.2
82.5°	14.4	14.4	14.4	14.4	14.4
85°	7.6	8.3	9.1	9.9	10.6
87.5°	4.6	4.6	5.3	6.1	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)