

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: P559039

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-80-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559039
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-12-1-LD4-2HI-35-UNV-80-97-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1845.0 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

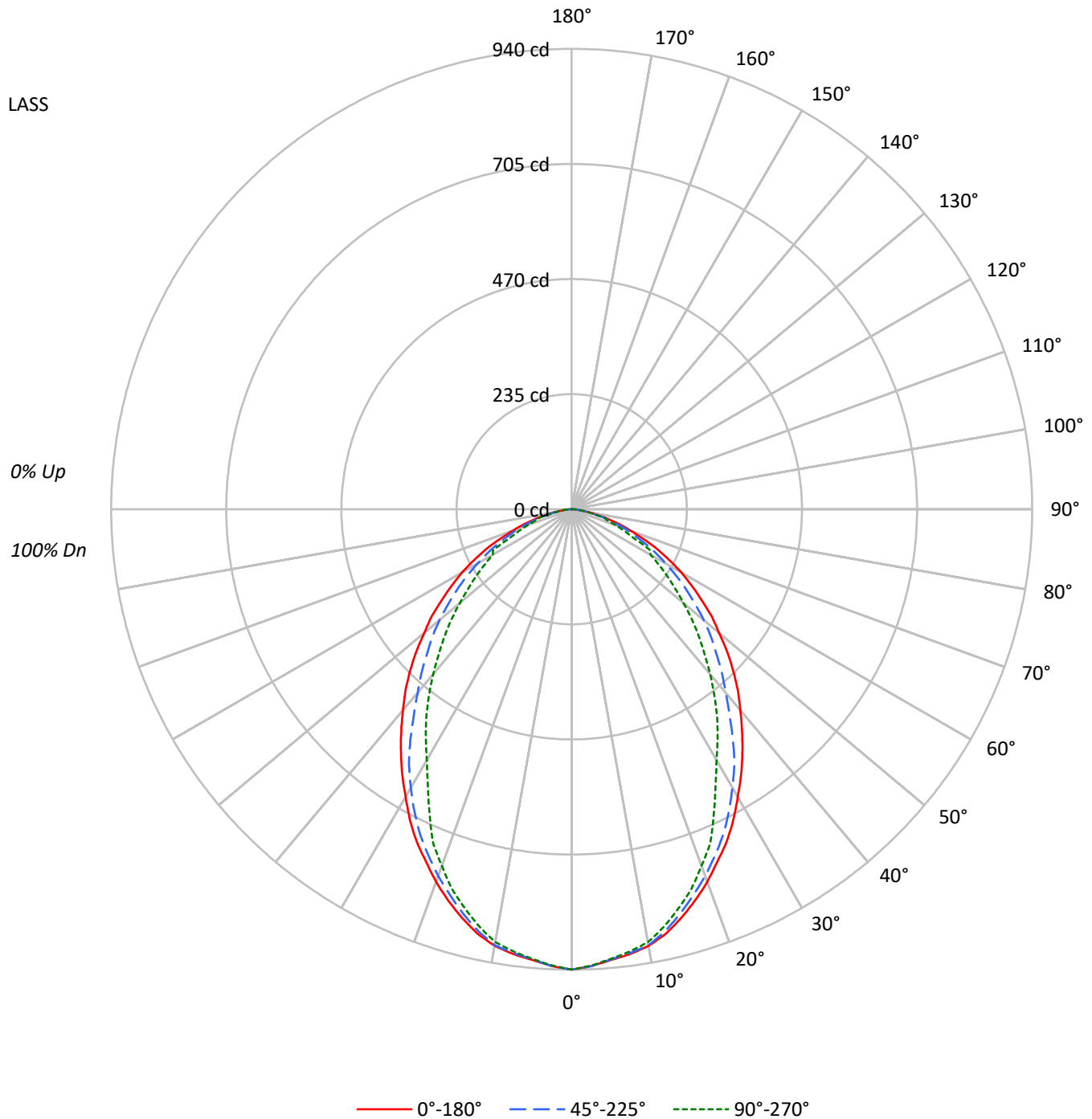
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10116	10116	10116
5°	9978	9967	9955
10°	9893	9881	9809
15°	9626	9529	9395
20°	9271	9123	8874
25°	8891	8697	8156
30°	8427	8156	7347
35°	7981	7539	6796
40°	7526	6870	6183
45°	7095	6351	5590
50°	6568	5894	4985
55°	6077	5343	4465
60°	5567	4771	4000
65°	4898	4180	3543
70°	4035	3660	3009
75°	3206	2803	2936
80°	2157	2021	1884
85°	1346	1606	1877

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7095 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.5	4.7
10°-20°	240.1	13.0
20°-30°	332.4	18.0
30°-40°	354.4	19.2
40°-50°	323.3	17.5
50°-60°	253.3	13.7
60°-70°	165.1	8.9
70°-80°	73.1	4.0
80°-90°	15.7	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°	660.0	35.8
0°-40°	1014.4	55.0
0°-60°	1591.1	86.2
0°-90°	1845.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1845.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	924	922	922	921	921	88
15°	864	864	855	846	843	243
25°	749	744	732	706	687	344
35°	607	603	574	530	517	380
45°	466	456	417	382	367	359
55°	324	314	285	251	238	290
65°	192	181	164	167	139	190
75°	77	72	67	64	71	83
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	939.8	939.8	939.8	939.8	939.8
2.5°	933.3	933.3	933.3	932.2	932.2
5°	923.5	922.4	922.4	921.3	921.3
7.5°	915.9	914.8	913.7	912.7	910.5
10°	905.1	905.1	904.0	898.5	897.4
12.5°	887.7	886.6	882.2	874.6	872.5
15°	863.8	863.8	855.1	846.4	843.1
17.5°	837.7	836.6	825.7	817.0	812.7
20°	809.4	807.3	796.4	782.3	774.7
22.5°	777.9	777.9	764.9	746.4	738.8
25°	748.6	744.2	732.3	706.2	686.7
27.5°	714.9	708.4	695.4	658.4	635.6
30°	678.0	674.7	656.2	608.4	591.1
32.5°	643.2	637.8	618.2	568.2	554.1
35°	607.4	603.0	573.7	530.2	517.2
37.5°	571.5	566.1	529.1	494.4	478.1
40°	535.6	529.1	488.9	457.4	440.0
42.5°	502.0	493.3	454.2	420.5	400.9
45°	466.1	456.3	417.2	382.4	367.2
47.5°	430.3	421.6	385.7	349.9	332.5
50°	392.2	384.6	352.0	316.2	297.7
52.5°	360.7	348.8	317.3	281.4	266.2
55°	323.8	314.0	284.7	251.0	237.9
57.5°	290.1	280.3	253.2	221.6	210.8
60°	258.6	244.5	221.6	194.5	185.8
62.5°	223.8	213.0	193.4	170.6	181.4
65°	192.3	181.4	164.1	167.3	139.1
67.5°	157.5	152.1	136.9	121.7	117.3
70°	128.2	121.7	116.3	100.0	95.6
72.5°	102.1	95.6	88.0	79.3	76.1
75°	77.1	71.7	67.4	64.1	70.6
77.5°	53.2	51.1	47.8	44.5	43.5
80°	34.8	33.7	32.6	31.5	30.4
82.5°	20.6	20.6	20.6	20.6	20.6
85°	10.9	12.0	13.0	14.1	15.2
87.5°	6.5	6.5	7.6	8.7	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)