

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: P559733

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-80-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559733
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-LD4-1HI-50-UNV-80-86-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1862.0 lumens
Efficiency: N/A
Efficacy: 86.2 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

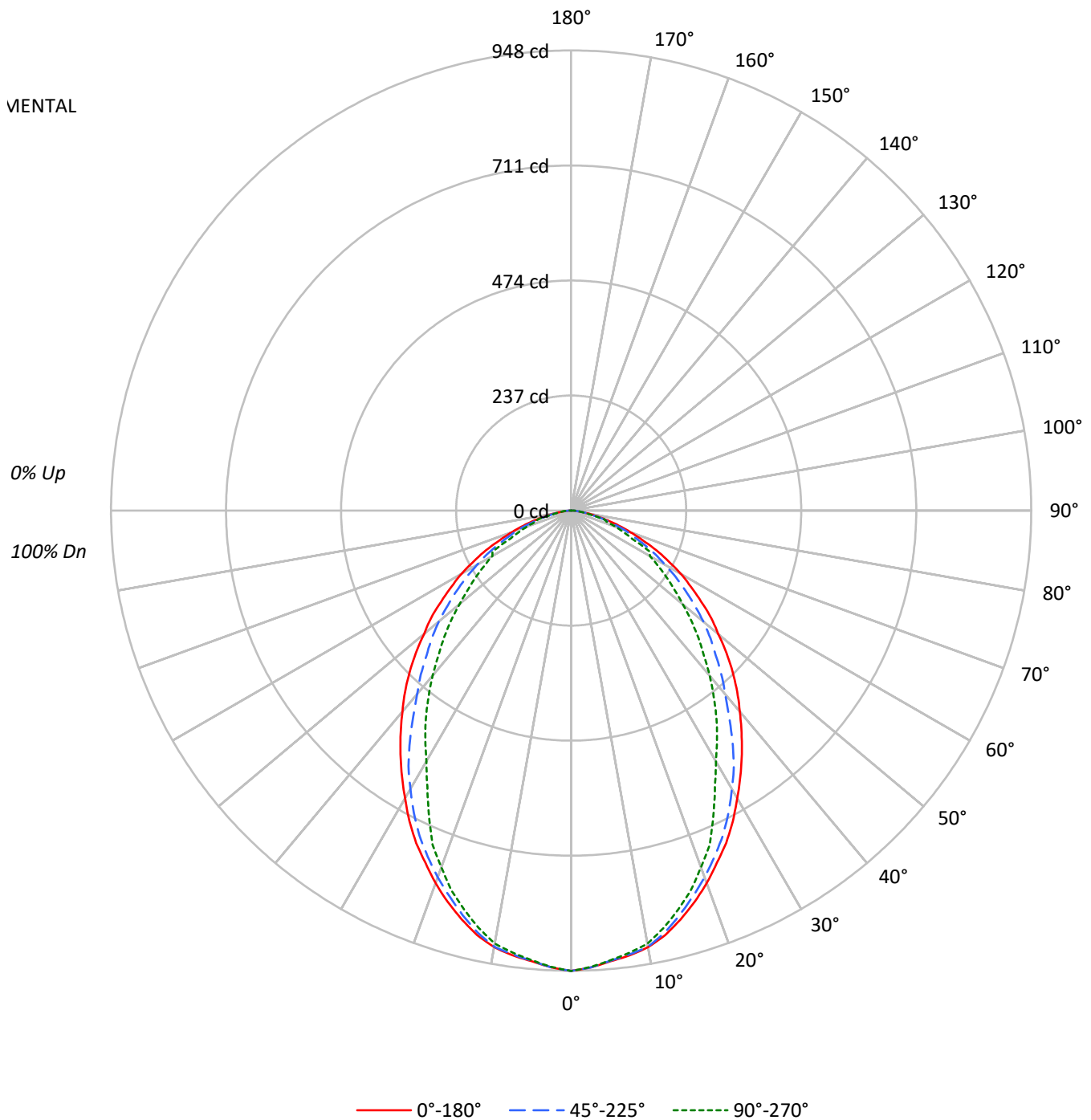
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5105	5105	5105
5°	5035	5029	5023
10°	4992	4986	4950
15°	4857	4808	4741
20°	4679	4603	4478
25°	4486	4388	4115
30°	4252	4116	3707
35°	4027	3804	3429
40°	3798	3466	3120
45°	3580	3205	2821
50°	3314	2975	2515
55°	3066	2696	2253
60°	2809	2408	2018
65°	2472	2109	1788
70°	2036	1846	1519
75°	1620	1414	1483
80°	1088	1020	951
85°	679	815	951

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3580 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.3	4.7
10°-20°	242.3	13.0
20°-30°	335.5	18.0
30°-40°	357.7	19.2
40°-50°	326.3	17.5
50°-60°	255.7	13.7
60°-70°	166.6	8.9
70°-80°	73.8	4.0
80°-90°	15.9	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°	666.0	35.8
0°-40°	1023.7	55.0
0°-60°	1605.7	86.2
0°-90°	1862.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1862.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	948	948	948	948	948	
5°	932	931	931	930	930	88
15°	872	872	863	854	851	245
25°	756	751	739	713	693	347
35°	613	609	579	535	522	383
45°	470	460	421	386	371	362
55°	327	317	287	253	240	293
65°	194	183	166	169	140	191
75°	78	72	68	65	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°	948.5	948.5	948.5	948.5	948.5
2.5°	941.9	941.9	941.9	940.8	940.8
5°	932.0	930.9	930.9	929.8	929.8
7.5°	924.4	923.3	922.2	921.1	918.9
10°	913.4	913.4	912.3	906.8	905.7
12.5°	895.8	894.7	890.4	882.7	880.5
15°	871.7	871.7	863.0	854.2	850.9
17.5°	845.4	844.3	833.3	824.6	820.2
20°	816.9	814.7	803.7	789.5	781.8
22.5°	785.1	785.1	771.9	753.3	745.6
25°	755.5	751.1	739.0	712.7	693.0
27.5°	721.5	714.9	701.8	664.5	641.5
30°	684.2	680.9	662.3	614.0	596.5
32.5°	649.1	643.6	623.9	573.5	559.2
35°	612.9	608.6	579.0	535.1	521.9
37.5°	576.8	571.3	534.0	498.9	482.5
40°	540.6	534.0	493.4	461.6	444.1
42.5°	506.6	497.8	458.3	424.3	404.6
45°	470.4	460.5	421.1	386.0	370.6
47.5°	434.2	425.4	389.3	353.1	335.5
50°	395.8	388.2	355.3	319.1	300.4
52.5°	364.0	352.0	320.2	284.0	268.6
55°	326.8	316.9	287.3	253.3	240.1
57.5°	292.8	282.9	255.5	223.7	212.7
60°	261.0	246.7	223.7	196.3	187.5
62.5°	225.9	214.9	195.2	172.2	183.1
65°	194.1	183.1	165.6	168.9	140.4
67.5°	159.0	153.5	138.2	122.8	118.4
70°	129.4	122.8	117.3	100.9	96.5
72.5°	103.1	96.5	88.8	80.0	76.8
75°	77.9	72.4	68.0	64.7	71.3
77.5°	53.7	51.5	48.2	45.0	43.9
80°	35.1	34.0	32.9	31.8	30.7
82.5°	20.8	20.8	20.8	20.8	20.8
85°	11.0	12.1	13.2	14.3	15.4
87.5°	6.6	6.6	7.7	8.8	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)