

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: P560248

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560248
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-LD4-2HI-40-UNV-80-88-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

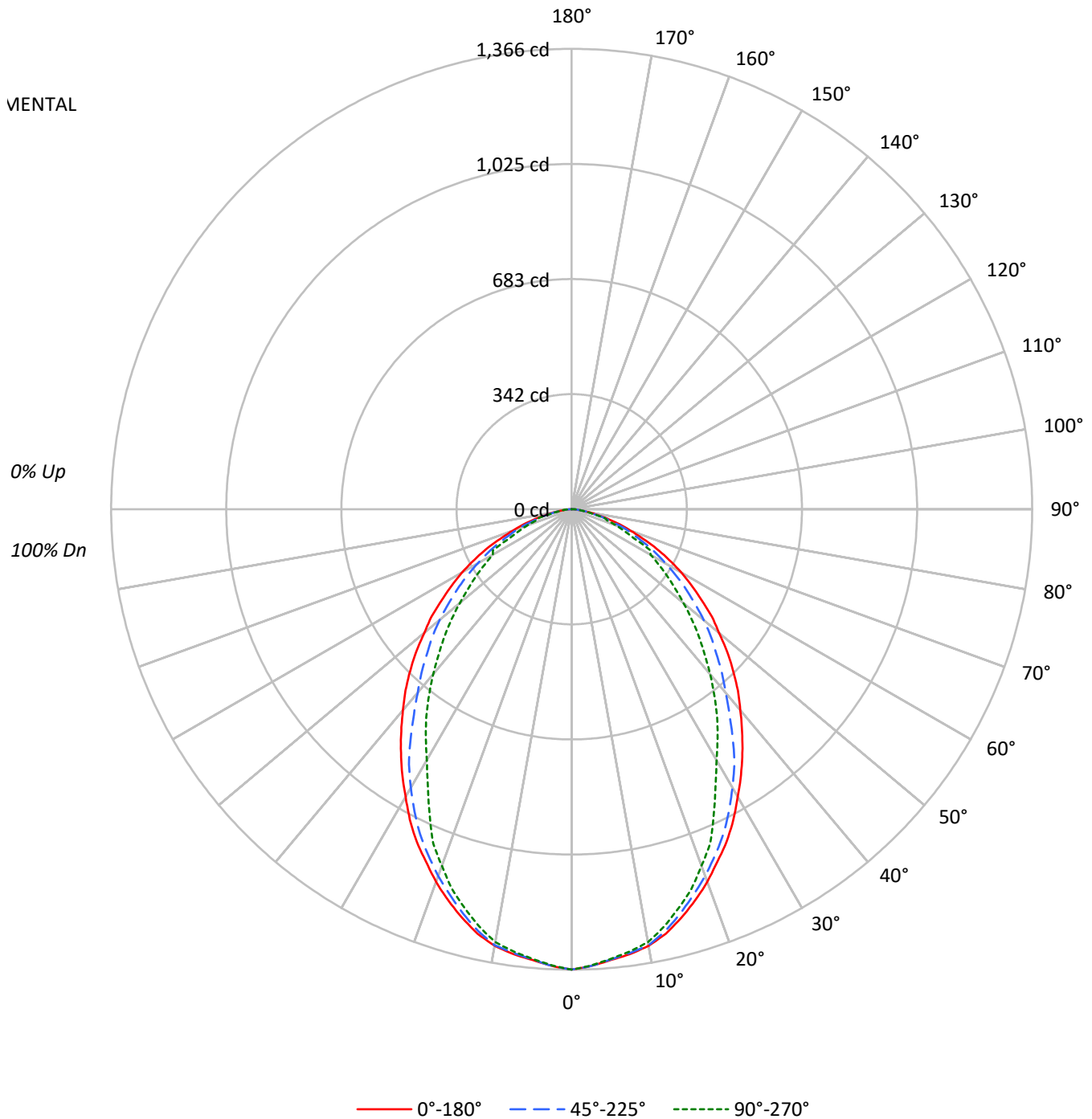
Lumens per Lamp: N/A
Luminaire Lumens: 2681.0 lumens
Efficiency: N/A
Efficacy: 62.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7350	7350	7350
5°	7250	7242	7233
10°	7187	7179	7127
15°	6993	6923	6827
20°	6737	6628	6447
25°	6460	6319	5925
30°	6123	5926	5338
35°	5799	5477	4937
40°	5469	4992	4492
45°	5155	4615	4061
50°	4772	4283	3622
55°	4415	3881	3245
60°	4045	3467	2906
65°	3558	3036	2574
70°	2932	2658	2186
75°	2331	2036	2133
80°	1565	1469	1370
85°	976	1167	1365

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5155 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.1	4.7
10°-20°	348.9	13.0
20°-30°	483.0	18.0
30°-40°	515.0	19.2
40°-50°	469.9	17.5
50°-60°	368.1	13.7
60°-70°	239.9	8.9
70°-80°	106.3	4.0
80°-90°	22.8	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
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0°-30°	959.0	35.8
0°-40°	1474.1	55.0
0°-60°	2312.0	86.2
0°-90°	2681.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2681.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1366	1366	1366	1366	1366	
5°	1342	1340	1340	1339	1339	127
15°	1255	1255	1242	1230	1225	353
25°	1088	1082	1064	1026	998	499
35°	883	876	834	770	752	552
45°	677	663	606	556	534	522
55°	470	456	414	365	346	422
65°	279	264	238	243	202	275
75°	112	104	98	93	103	120
85°	16	17	19	20	22	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1365.7	1365.7	1365.7	1365.7	1365.7
2.5°	1356.2	1356.2	1356.2	1354.6	1354.6
5°	1342.0	1340.4	1340.4	1338.8	1338.8
7.5°	1330.9	1329.4	1327.8	1326.2	1323.0
10°	1315.1	1315.1	1313.6	1305.7	1304.1
12.5°	1289.9	1288.3	1282.0	1270.9	1267.8
15°	1255.1	1255.1	1242.5	1229.9	1225.2
17.5°	1217.3	1215.7	1199.9	1187.3	1180.9
20°	1176.2	1173.1	1157.3	1136.7	1125.7
22.5°	1130.4	1130.4	1111.5	1084.6	1073.6
25°	1087.8	1081.5	1064.1	1026.2	997.8
27.5°	1038.9	1029.4	1010.4	956.8	923.6
30°	985.2	980.4	953.6	884.1	858.9
32.5°	934.7	926.8	898.3	825.7	805.2
35°	882.6	876.2	833.6	770.5	751.5
37.5°	830.5	822.6	768.9	718.4	694.7
40°	778.4	768.9	710.5	664.7	639.4
42.5°	729.4	716.8	659.9	611.0	582.6
45°	677.3	663.1	606.3	555.7	533.6
47.5°	625.2	612.6	560.5	508.4	483.1
50°	569.9	558.9	511.5	459.4	432.6
52.5°	524.2	506.8	461.0	408.9	386.8
55°	470.5	456.3	413.6	364.7	345.8
57.5°	421.5	407.3	367.9	322.1	306.3
60°	375.8	355.2	322.1	282.6	270.0
62.5°	325.2	309.4	281.0	247.9	263.7
65°	279.4	263.7	238.4	243.1	202.1
67.5°	228.9	221.0	198.9	176.8	170.5
70°	186.3	176.8	168.9	145.2	138.9
72.5°	148.4	138.9	127.9	115.3	110.5
75°	112.1	104.2	97.9	93.1	102.6
77.5°	77.4	74.2	69.5	64.7	63.2
80°	50.5	48.9	47.4	45.8	44.2
82.5°	30.0	30.0	30.0	30.0	30.0
85°	15.8	17.4	18.9	20.5	22.1
87.5°	9.5	9.5	11.1	12.6	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)