

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: P560499

Luminaire Tested: FSR-12-2-LD4-2LO-50-UNV-80-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560499
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-LD4-2LO-50-UNV-80-85-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2293.0 lumens
Efficiency: N/A
Efficacy: 98.0 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

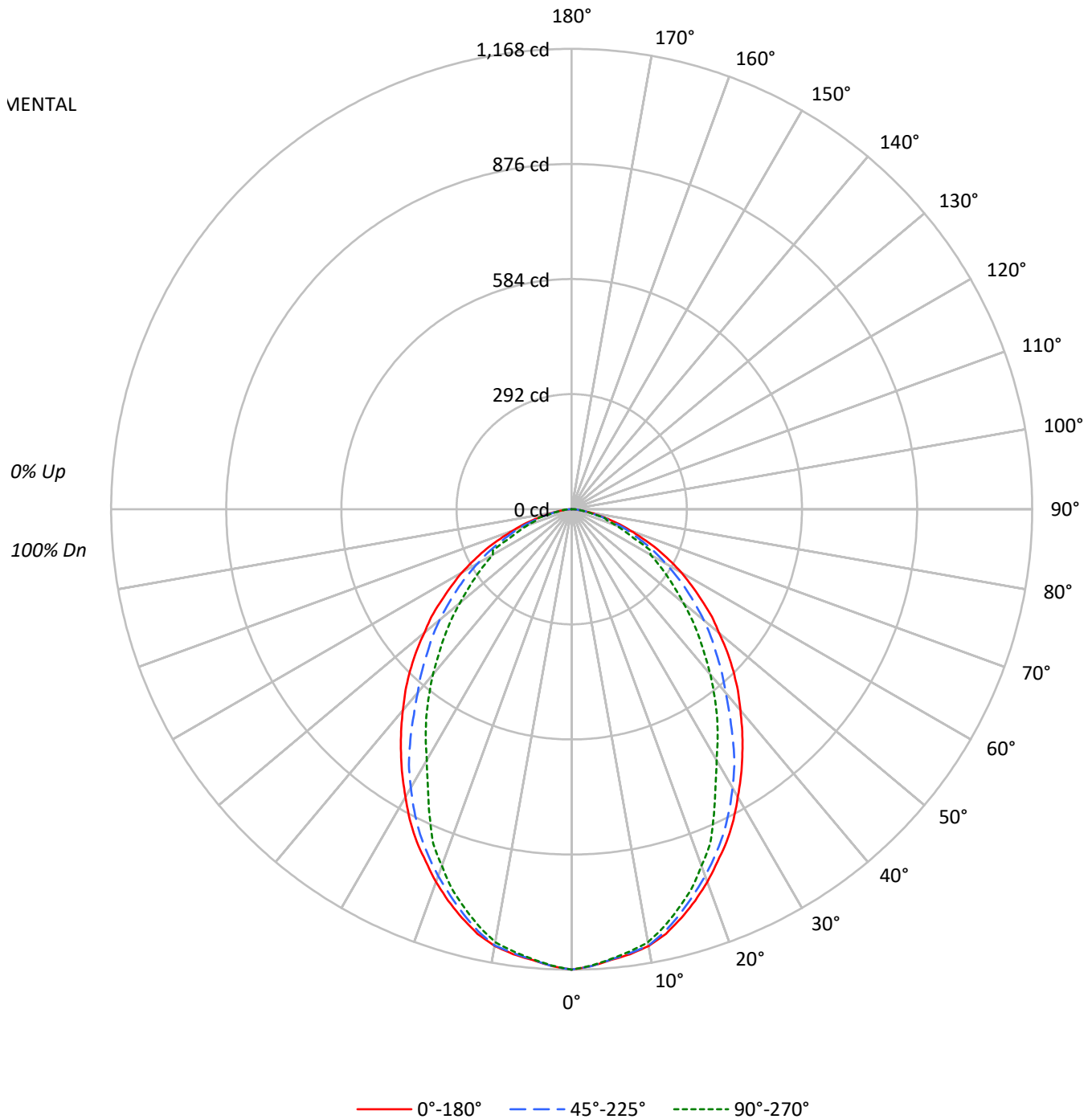
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6286	6286	6286
5°	6201	6193	6186
10°	6147	6140	6096
15°	5981	5921	5838
20°	5762	5669	5514
25°	5525	5404	5068
30°	5236	5069	4565
35°	4959	4685	4223
40°	4677	4269	3842
45°	4409	3946	3474
50°	4082	3663	3098
55°	3776	3320	2775
60°	3460	2965	2485
65°	3044	2597	2201
70°	2507	2274	1869
75°	1994	1740	1826
80°	1339	1255	1172
85°	834	1000	1167

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4409 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.7	4.7
10°-20°	298.4	13.0
20°-30°	413.1	18.0
30°-40°	440.5	19.2
40°-50°	401.8	17.5
50°-60°	314.8	13.7
60°-70°	205.2	8.9
70°-80°	90.9	4.0
80°-90°	19.5	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°	820.2	35.8
0°-40°	1260.7	55.0
0°-60°	1977.4	86.2
0°-90°	2293.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2293.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1168	1168	1168	1168	1168	
5°	1148	1146	1146	1145	1145	109
15°	1074	1074	1063	1052	1048	302
25°	930	925	910	878	853	427
35°	755	749	713	659	643	472
45°	579	567	518	475	456	446
55°	402	390	354	312	296	361
65°	239	226	204	208	173	236
75°	96	89	84	80	88	103
85°	14	15	16	18	19	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1168.0	1168.0	1168.0	1168.0	1168.0
2.5°	1159.9	1159.9	1159.9	1158.6	1158.6
5°	1147.8	1146.4	1146.4	1145.1	1145.1
7.5°	1138.3	1137.0	1135.6	1134.3	1131.6
10°	1124.8	1124.8	1123.5	1116.7	1115.4
12.5°	1103.2	1101.9	1096.5	1087.0	1084.3
15°	1073.5	1073.5	1062.7	1051.9	1047.8
17.5°	1041.1	1039.7	1026.2	1015.4	1010.0
20°	1006.0	1003.3	989.8	972.2	962.8
22.5°	966.8	966.8	950.6	927.7	918.2
25°	930.4	925.0	910.1	877.7	853.4
27.5°	888.5	880.4	864.2	818.3	789.9
30°	842.6	838.5	815.6	756.2	734.6
32.5°	799.4	792.6	768.3	706.2	688.7
35°	754.8	749.4	713.0	659.0	642.8
37.5°	710.3	703.5	657.6	614.4	594.1
40°	665.7	657.6	607.6	568.5	546.9
42.5°	623.8	613.0	564.4	522.6	498.3
45°	579.3	567.1	518.5	475.3	456.4
47.5°	534.7	523.9	479.4	434.8	413.2
50°	487.5	478.0	437.5	392.9	370.0
52.5°	448.3	433.5	394.3	349.7	330.8
55°	402.4	390.2	353.8	311.9	295.7
57.5°	360.5	348.4	314.6	275.5	262.0
60°	321.4	303.8	275.5	241.7	230.9
62.5°	278.2	264.7	240.4	212.0	225.5
65°	239.0	225.5	203.9	207.9	172.8
67.5°	195.8	189.0	170.1	151.2	145.8
70°	159.3	151.2	144.5	124.2	118.8
72.5°	126.9	118.8	109.4	98.6	94.5
75°	95.9	89.1	83.7	79.7	87.8
77.5°	66.2	63.5	59.4	55.4	54.0
80°	43.2	41.9	40.5	39.2	37.8
82.5°	25.7	25.7	25.7	25.7	25.7
85°	13.5	14.9	16.2	17.6	18.9
87.5°	8.1	8.1	9.5	10.8	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)