

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: P560569

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560569
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-LD4-2STD-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: 2576.0 lumens
Efficiency: N/A
Efficacy: 77.4 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

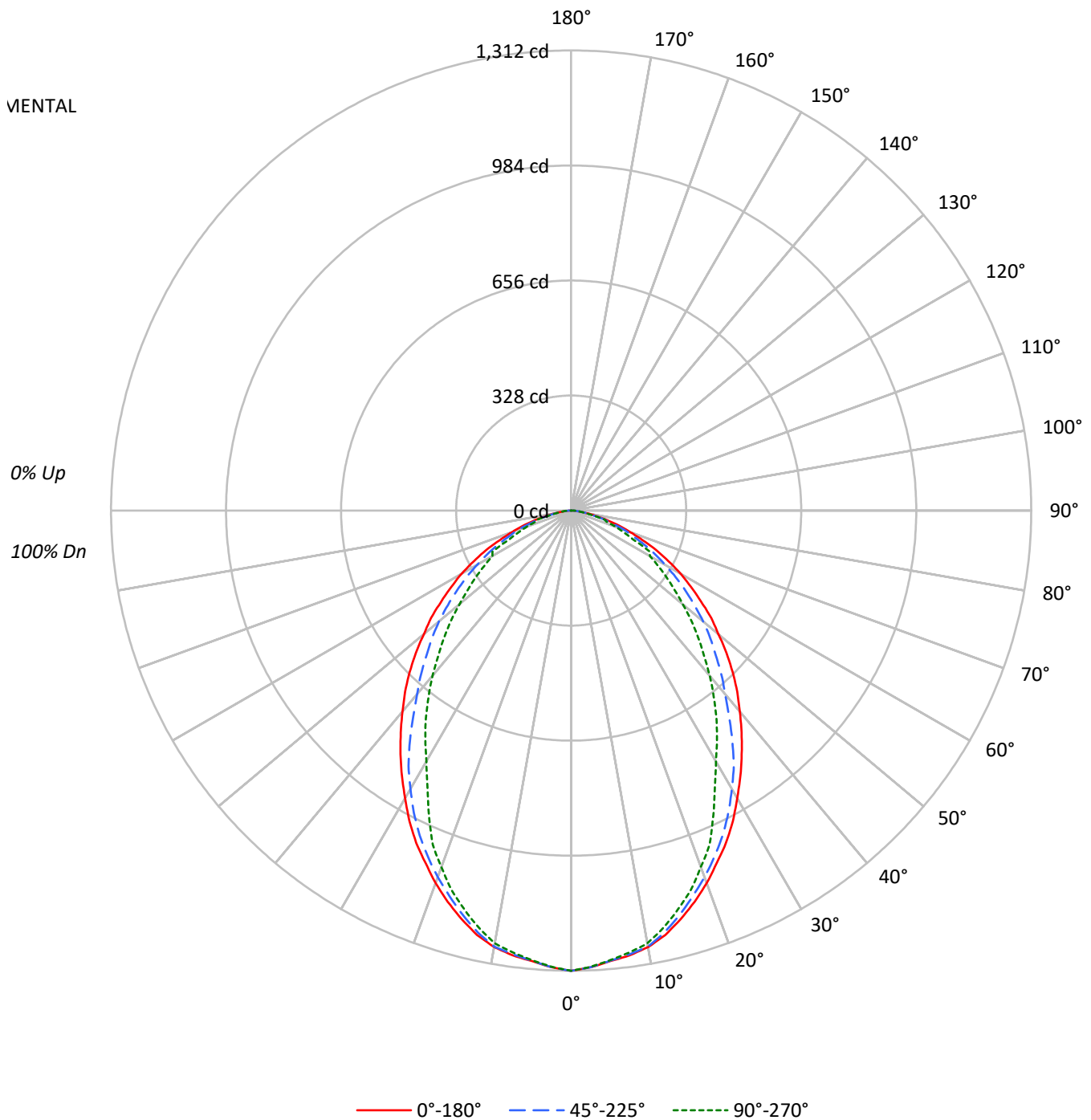
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7062	7062	7062
5°	6966	6958	6950
10°	6906	6897	6848
15°	6720	6652	6559
20°	6472	6368	6195
25°	6207	6071	5693
30°	5883	5694	5128
35°	5571	5263	4744
40°	5254	4796	4317
45°	4953	4434	3902
50°	4585	4115	3481
55°	4242	3729	3117
60°	3886	3331	2792
65°	3419	2918	2473
70°	2817	2554	2101
75°	2240	1957	2050
80°	1503	1410	1317
85°	939	1124	1309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4953 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.1	4.7
10°-20°	335.2	13.0
20°-30°	464.1	18.0
30°-40°	494.9	19.2
40°-50°	451.5	17.5
50°-60°	353.7	13.7
60°-70°	230.5	8.9
70°-80°	102.1	4.0
80°-90°	21.9	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°	921.5	35.8
0°-40°	1416.3	55.0
0°-60°	2221.4	86.2
0°-90°	2576.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2576.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1312	1312	1312	1312	1312	
5°	1289	1288	1288	1286	1286	122
15°	1206	1206	1194	1182	1177	339
25°	1045	1039	1022	986	959	480
35°	848	842	801	740	722	530
45°	651	637	582	534	513	501
55°	452	438	397	350	332	405
65°	268	253	229	234	194	265
75°	108	100	94	90	99	115
85°	15	17	18	20	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1312.2	1312.2	1312.2	1312.2	1312.2
2.5°	1303.1	1303.1	1303.1	1301.6	1301.6
5°	1289.4	1287.9	1287.9	1286.4	1286.4
7.5°	1278.8	1277.3	1275.8	1274.3	1271.2
10°	1263.6	1263.6	1262.1	1254.5	1253.0
12.5°	1239.4	1237.8	1231.8	1221.2	1218.1
15°	1206.0	1206.0	1193.9	1181.7	1177.2
17.5°	1169.6	1168.1	1152.9	1140.8	1134.7
20°	1130.1	1127.1	1111.9	1092.2	1081.6
22.5°	1086.2	1086.2	1067.9	1042.2	1031.5
25°	1045.2	1039.1	1022.4	986.0	958.7
27.5°	998.2	989.1	970.9	919.3	887.4
30°	946.6	942.0	916.3	849.5	825.2
32.5°	898.0	890.5	863.2	793.4	773.7
35°	848.0	841.9	801.0	740.3	722.1
37.5°	797.9	790.3	738.8	690.2	667.5
40°	747.9	738.8	682.6	638.6	614.4
42.5°	700.8	688.7	634.1	587.1	559.8
45°	650.8	637.1	582.5	534.0	512.7
47.5°	600.7	588.6	538.5	488.5	464.2
50°	547.6	537.0	491.5	441.4	415.7
52.5°	503.6	486.9	443.0	392.9	371.7
55°	452.1	438.4	397.4	350.4	332.2
57.5°	405.0	391.4	353.5	309.5	294.3
60°	361.0	341.3	309.5	271.5	259.4
62.5°	312.5	297.3	270.0	238.2	253.3
65°	268.5	253.3	229.1	233.6	194.2
67.5°	220.0	212.4	191.1	169.9	163.8
70°	179.0	169.9	162.3	139.6	133.5
72.5°	142.6	133.5	122.9	110.7	106.2
75°	107.7	100.1	94.1	89.5	98.6
77.5°	74.3	71.3	66.7	62.2	60.7
80°	48.5	47.0	45.5	44.0	42.5
82.5°	28.8	28.8	28.8	28.8	28.8
85°	15.2	16.7	18.2	19.7	21.2
87.5°	9.1	9.1	10.6	12.1	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)