

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: P560599

Luminaire Tested: FSR-12-2-LD4-2STD-35-UNV-82-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560599
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-82-87-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2660.0 lumens
Efficiency: N/A
Efficacy: 79.9 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

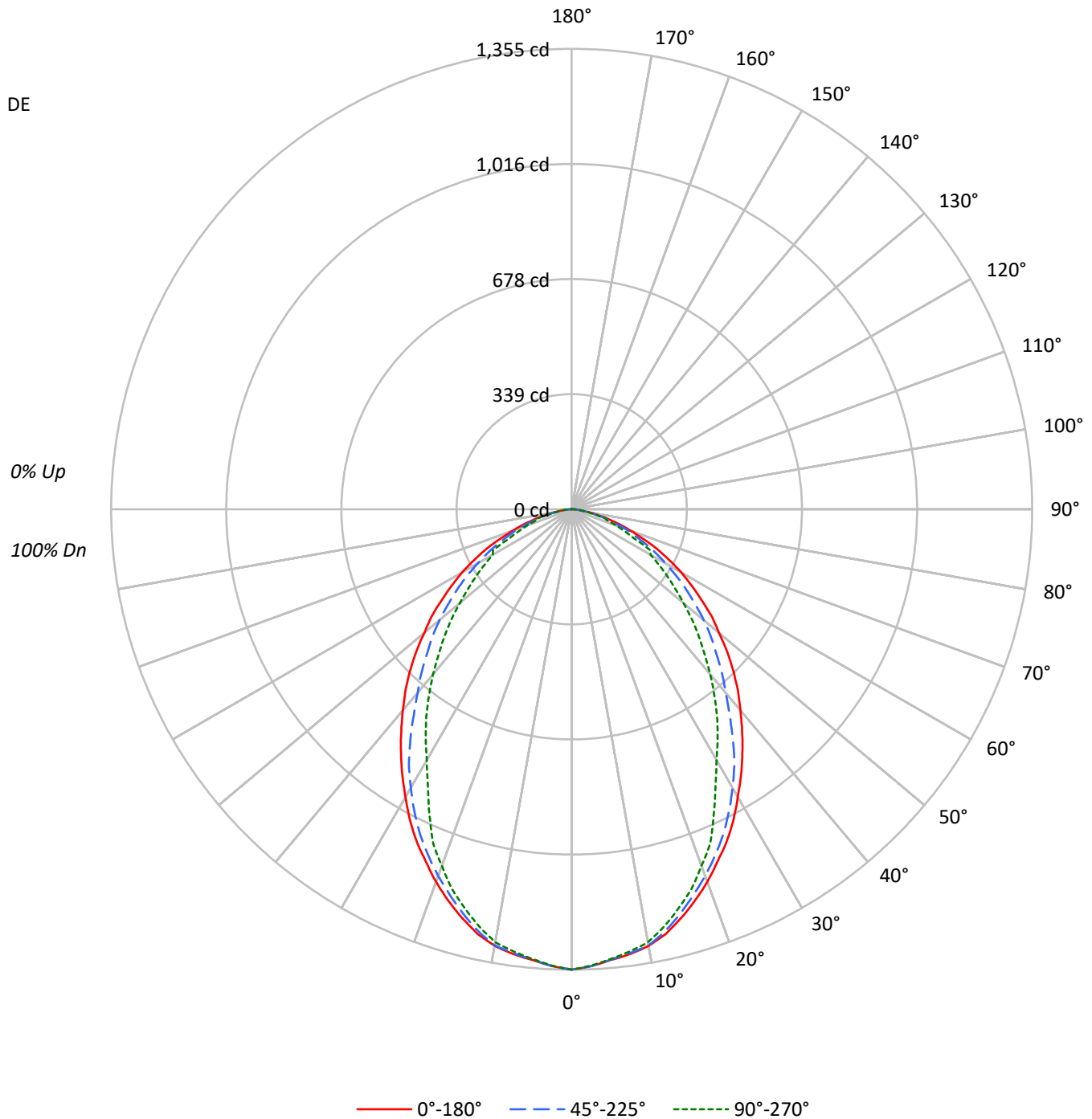
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7293	7293	7293
5°	7193	7185	7176
10°	7131	7123	7071
15°	6939	6869	6773
20°	6684	6576	6397
25°	6409	6270	5879
30°	6075	5880	5295
35°	5753	5434	4899
40°	5426	4952	4457
45°	5115	4578	4030
50°	4735	4249	3594
55°	4380	3851	3218
60°	4013	3440	2884
65°	3531	3012	2553
70°	2908	2637	2168
75°	2312	2019	2117
80°	1553	1457	1361
85°	969	1161	1352

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5115 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.1	4.7
10°-20°	346.2	13.0
20°-30°	479.2	18.0
30°-40°	511.0	19.2
40°-50°	466.2	17.5
50°-60°	365.2	13.7
60°-70°	238.0	8.9
70°-80°	105.4	4.0
80°-90°	22.7	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°	951.5	35.8
0°-40°	1462.5	55.0
0°-60°	2293.9	86.2
0°-90°	2660.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2660.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1355	1355	1355	1355	1355	
5°	1332	1330	1330	1328	1328	126
15°	1245	1245	1233	1220	1216	350
25°	1079	1073	1056	1018	990	496
35°	876	869	827	764	746	547
45°	672	658	602	551	530	518
55°	467	453	410	362	343	419
65°	277	262	236	241	200	273
75°	111	103	97	92	102	119
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°	1355.0	1355.0	1355.0	1355.0	1355.0
2.5°	1345.6	1345.6	1345.6	1344.0	1344.0
5°	1331.5	1329.9	1329.9	1328.3	1328.3
7.5°	1320.5	1318.9	1317.4	1315.8	1312.7
10°	1304.8	1304.8	1303.3	1295.4	1293.9
12.5°	1279.8	1278.2	1271.9	1261.0	1257.8
15°	1245.3	1245.3	1232.8	1220.3	1215.6
17.5°	1207.7	1206.2	1190.5	1178.0	1171.7
20°	1167.0	1163.9	1148.2	1127.8	1116.9
22.5°	1121.6	1121.6	1102.8	1076.1	1065.2
25°	1079.3	1073.0	1055.8	1018.2	990.0
27.5°	1030.7	1021.3	1002.5	949.3	916.4
30°	977.5	972.8	946.1	877.2	852.1
32.5°	927.3	919.5	891.3	819.2	798.9
35°	875.6	869.4	827.1	764.4	745.6
37.5°	823.9	816.1	762.9	712.7	689.2
40°	772.3	762.9	704.9	659.5	634.4
42.5°	723.7	711.2	654.8	606.2	578.0
45°	672.0	657.9	601.5	551.4	529.5
47.5°	620.3	607.8	556.1	504.4	479.3
50°	565.5	554.5	507.5	455.8	429.2
52.5°	520.1	502.8	457.4	405.7	383.8
55°	466.8	452.7	410.4	361.8	343.0
57.5°	418.2	404.1	365.0	319.6	303.9
60°	372.8	352.4	319.6	280.4	267.9
62.5°	322.7	307.0	278.8	245.9	261.6
65°	277.3	261.6	236.5	241.2	200.5
67.5°	227.1	219.3	197.4	175.4	169.2
70°	184.8	175.4	167.6	144.1	137.8
72.5°	147.2	137.8	126.9	114.3	109.7
75°	111.2	103.4	97.1	92.4	101.8
77.5°	76.8	73.6	68.9	64.2	62.7
80°	50.1	48.6	47.0	45.4	43.9
82.5°	29.8	29.8	29.8	29.8	29.8
85°	15.7	17.2	18.8	20.4	21.9
87.5°	9.4	9.4	11.0	12.5	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)