

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: P558832

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558832
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-12-1-LD4-1STD-35-UNV-80-84-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 658.0 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

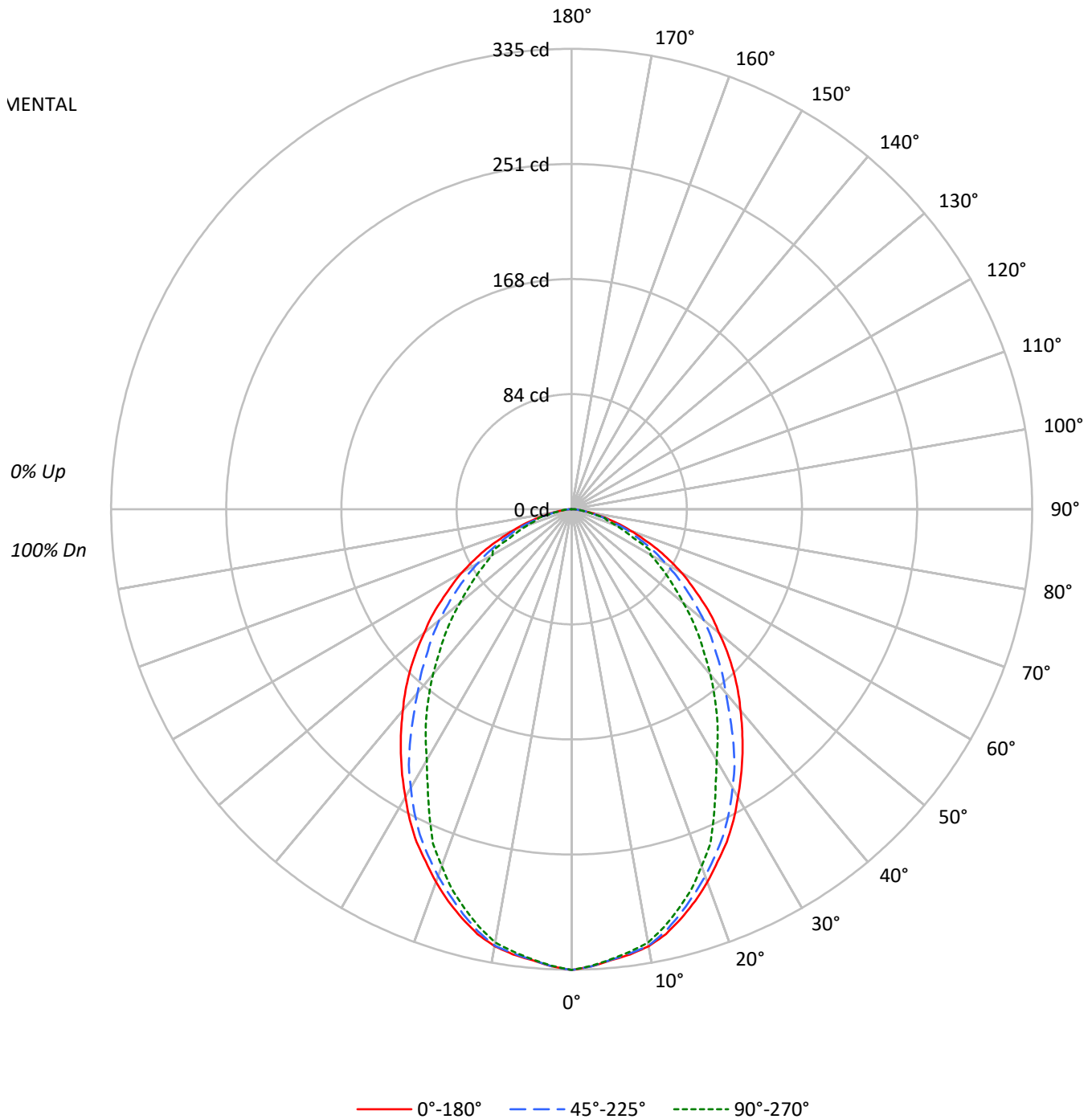
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3608	3608	3608
5°	3559	3555	3551
10°	3528	3524	3499
15°	3433	3399	3351
20°	3307	3253	3165
25°	3171	3102	2909
30°	3005	2908	2620
35°	2846	2689	2423
40°	2684	2451	2205
45°	2530	2265	1994
50°	2343	2102	1778
55°	2168	1905	1593
60°	1985	1701	1427
65°	1747	1490	1263
70°	1438	1306	1073
75°	1144	998	1048
80°	769	719	669
85°	482	568	667

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2530 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.2	4.7
10°-20°	85.6	13.0
20°-30°	118.5	18.0
30°-40°	126.4	19.2
40°-50°	115.3	17.5
50°-60°	90.3	13.7
60°-70°	58.9	8.9
70°-80°	26.1	4.0
80°-90°	5.6	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°	235.4	35.8
0°-40°	361.8	55.0
0°-60°	567.4	86.2
0°-90°	658.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	658.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	335	335	335	335	335	
5°	329	329	329	329	329	31
15°	308	308	305	302	301	87
25°	267	265	261	252	245	123
35°	217	215	205	189	184	135
45°	166	163	149	136	131	128
55°	116	112	102	90	85	104
65°	69	65	58	60	50	68
75°	28	26	24	23	25	29
85°	4	4	5	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	335.2	335.2	335.2	335.2	335.2
2.5°	332.9	332.9	332.9	332.5	332.5
5°	329.4	329.0	329.0	328.6	328.6
7.5°	326.7	326.3	325.9	325.5	324.7
10°	322.8	322.8	322.4	320.5	320.1
12.5°	316.6	316.2	314.6	311.9	311.2
15°	308.1	308.1	305.0	301.9	300.7
17.5°	298.8	298.4	294.5	291.4	289.8
20°	288.7	287.9	284.0	279.0	276.3
22.5°	277.4	277.4	272.8	266.2	263.5
25°	267.0	265.4	261.2	251.9	244.9
27.5°	255.0	252.6	248.0	234.8	226.7
30°	241.8	240.6	234.0	217.0	210.8
32.5°	229.4	227.5	220.5	202.7	197.6
35°	216.6	215.1	204.6	189.1	184.4
37.5°	203.8	201.9	188.7	176.3	170.5
40°	191.0	188.7	174.4	163.1	156.9
42.5°	179.0	175.9	162.0	150.0	143.0
45°	166.2	162.7	148.8	136.4	131.0
47.5°	153.4	150.3	137.6	124.8	118.6
50°	139.9	137.2	125.5	112.8	106.2
52.5°	128.6	124.4	113.1	100.4	94.9
55°	115.5	112.0	101.5	89.5	84.9
57.5°	103.5	100.0	90.3	79.0	75.2
60°	92.2	87.2	79.0	69.4	66.3
62.5°	79.8	75.9	69.0	60.8	64.7
65°	68.6	64.7	58.5	59.7	49.6
67.5°	56.2	54.2	48.8	43.4	41.8
70°	45.7	43.4	41.5	35.6	34.1
72.5°	36.4	34.1	31.4	28.3	27.1
75°	27.5	25.6	24.0	22.9	25.2
77.5°	19.0	18.2	17.0	15.9	15.5
80°	12.4	12.0	11.6	11.2	10.8
82.5°	7.4	7.4	7.4	7.4	7.4
85°	3.9	4.3	4.6	5.0	5.4
87.5°	2.3	2.3	2.7	3.1	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)