

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: P560594

Luminaire Tested: FSR-12-2-LD4-2STD-35-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560594
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-82-85-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2327.0 lumens
Efficiency: N/A
Efficacy: 69.9 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

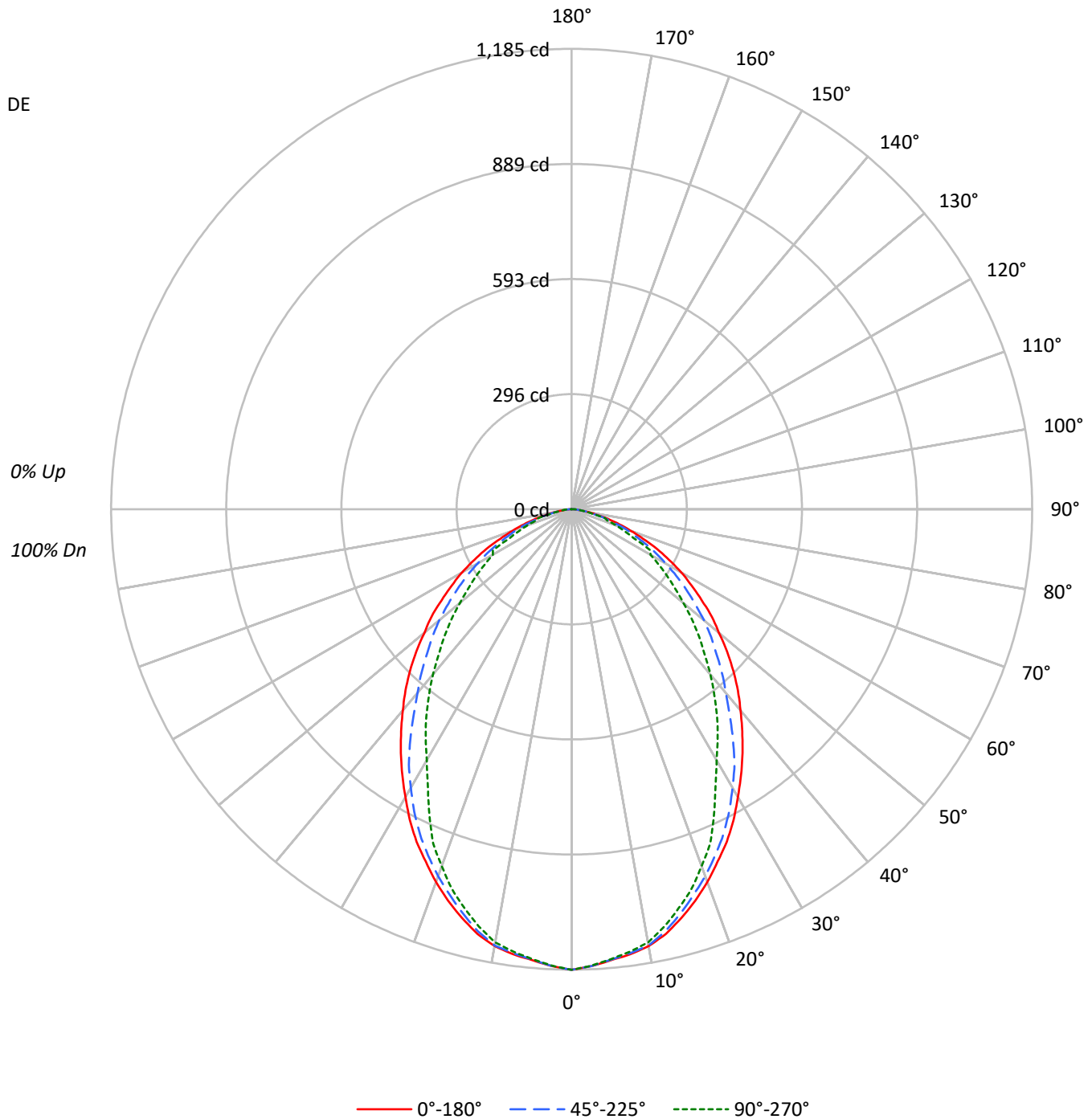
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6379	6379	6379
5°	6293	6285	6278
10°	6238	6231	6186
15°	6070	6009	5925
20°	5847	5753	5596
25°	5607	5485	5143
30°	5314	5144	4633
35°	5033	4754	4286
40°	4747	4333	3899
45°	4475	4005	3526
50°	4142	3718	3144
55°	3832	3369	2816
60°	3510	3009	2522
65°	3088	2635	2234
70°	2544	2307	1898
75°	2023	1768	1853
80°	1361	1274	1190
85°	846	1013	1186

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4475 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.3	4.7
10°-20°	302.8	13.0
20°-30°	419.2	18.0
30°-40°	447.0	19.2
40°-50°	407.8	17.5
50°-60°	319.5	13.7
60°-70°	208.2	8.9
70°-80°	92.2	4.0
80°-90°	19.8	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
0°-30°	832.4	35.8
0°-40°	1279.4	55.0
0°-60°	2006.7	86.2
0°-90°	2327.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2327.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1185	1185	1185	1185	1185	
5°	1165	1163	1163	1162	1162	111
15°	1089	1089	1078	1068	1063	306
25°	944	939	924	891	866	433
35°	766	760	724	669	652	479
45°	588	576	526	482	463	453
55°	408	396	359	316	300	366
65°	242	229	207	211	175	239
75°	97	90	85	81	89	104
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°	1185.3	1185.3	1185.3	1185.3	1185.3
2.5°	1177.1	1177.1	1177.1	1175.8	1175.8
5°	1164.8	1163.4	1163.4	1162.0	1162.0
7.5°	1155.2	1153.8	1152.5	1151.1	1148.3
10°	1141.5	1141.5	1140.1	1133.3	1131.9
12.5°	1119.6	1118.2	1112.7	1103.1	1100.4
15°	1089.4	1089.4	1078.5	1067.5	1063.4
17.5°	1056.5	1055.2	1041.5	1030.5	1025.0
20°	1020.9	1018.2	1004.5	986.6	977.1
22.5°	981.2	981.2	964.7	941.4	931.8
25°	944.2	938.7	923.6	890.7	866.1
27.5°	901.7	893.5	877.0	830.4	801.6
30°	855.1	851.0	827.7	767.4	745.5
32.5°	811.2	804.4	779.7	716.7	698.9
35°	766.0	760.5	723.5	668.7	652.3
37.5°	720.8	713.9	667.4	623.5	602.9
40°	675.6	667.4	616.7	576.9	555.0
42.5°	633.1	622.1	572.8	530.3	505.7
45°	587.9	575.5	526.2	482.4	463.2
47.5°	542.7	531.7	486.5	441.2	419.3
50°	494.7	485.1	444.0	398.8	375.5
52.5°	455.0	439.9	400.1	354.9	335.7
55°	408.4	396.0	359.0	316.5	300.1
57.5°	365.9	353.5	319.3	279.5	265.8
60°	326.1	308.3	279.5	245.3	234.3
62.5°	282.3	268.6	243.9	215.1	228.8
65°	242.5	228.8	206.9	211.0	175.4
67.5°	198.7	191.8	172.7	153.5	148.0
70°	161.7	153.5	146.6	126.1	120.6
72.5°	128.8	120.6	111.0	100.0	95.9
75°	97.3	90.4	85.0	80.8	89.1
77.5°	67.1	64.4	60.3	56.2	54.8
80°	43.9	42.5	41.1	39.7	38.4
82.5°	26.0	26.0	26.0	26.0	26.0
85°	13.7	15.1	16.4	17.8	19.2
87.5°	8.2	8.2	9.6	11.0	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)