

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: P560093

Luminaire Tested: FSR-12-2-LD4-1STD-40-UNV-82-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560093
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-LD4-1STD-40-UNV-82-96-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1420.0 lumens
Efficiency: N/A
Efficacy: 85.5 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

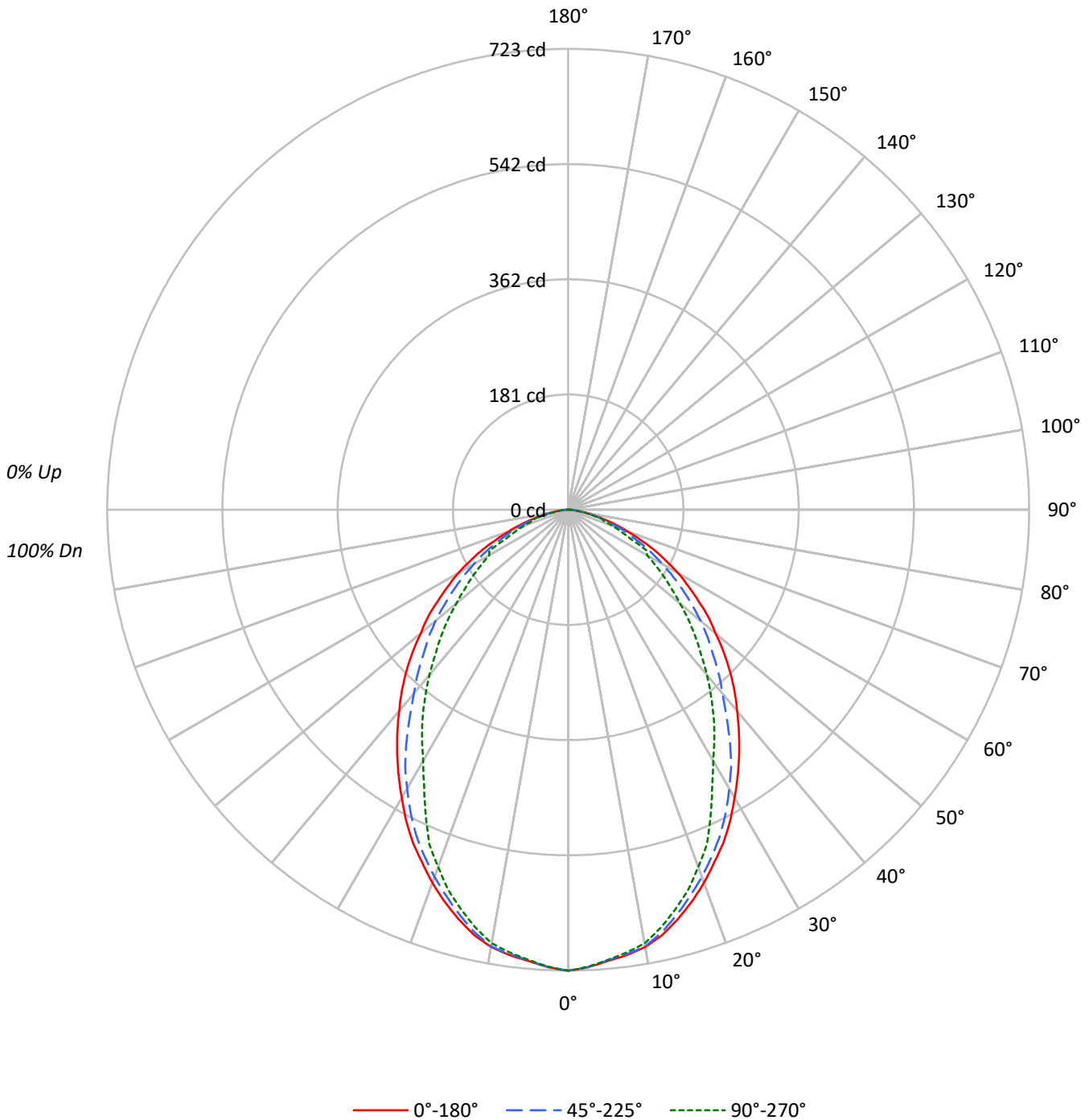
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3893	3893	3893
5°	3840	3835	3831
10°	3807	3802	3775
15°	3704	3667	3616
20°	3568	3510	3415
25°	3422	3347	3138
30°	3243	3139	2827
35°	3071	2901	2615
40°	2897	2644	2380
45°	2730	2444	2151
50°	2528	2268	1918
55°	2338	2056	1718
60°	2142	1836	1539
65°	1885	1608	1363
70°	1553	1408	1158
75°	1235	1077	1131
80°	831	778	725
85°	519	618	722

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2730 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.3	4.7
10°-20°	184.8	13.0
20°-30°	255.8	18.0
30°-40°	272.8	19.2
40°-50°	248.9	17.5
50°-60°	195.0	13.7
60°-70°	127.1	8.9
70°-80°	56.3	4.0
80°-90°	12.1	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°	507.9	35.8
0°-40°	780.7	55.0
0°-60°	1224.5	86.2
0°-90°	1420.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1420.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	723	723	723	723	723	
5°	711	710	710	709	709	67
15°	665	665	658	651	649	187
25°	576	573	564	544	528	265
35°	467	464	442	408	398	292
45°	359	351	321	294	283	276
55°	249	242	219	193	183	224
65°	148	140	126	129	107	146
75°	59	55	52	49	54	64
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	723.3	723.3	723.3	723.3	723.3
2.5°	718.3	718.3	718.3	717.5	717.5
5°	710.8	709.9	709.9	709.1	709.1
7.5°	704.9	704.1	703.3	702.4	700.8
10°	696.6	696.6	695.7	691.6	690.7
12.5°	683.2	682.4	679.0	673.2	671.5
15°	664.8	664.8	658.1	651.4	648.9
17.5°	644.7	643.9	635.5	628.8	625.5
20°	623.0	621.3	612.9	602.1	596.2
22.5°	598.7	598.7	588.7	574.5	568.6
25°	576.2	572.8	563.6	543.5	528.5
27.5°	550.2	545.2	535.2	506.7	489.2
30°	521.8	519.3	505.1	468.3	454.9
32.5°	495.0	490.9	475.8	437.3	426.5
35°	467.4	464.1	441.5	408.1	398.0
37.5°	439.9	435.7	407.2	380.5	367.9
40°	412.3	407.2	376.3	352.0	338.7
42.5°	386.3	379.6	349.5	323.6	308.6
45°	358.7	351.2	321.1	294.3	282.6
47.5°	331.1	324.5	296.9	269.3	255.9
50°	301.9	296.0	270.9	243.3	229.1
52.5°	277.6	268.4	244.2	216.6	204.9
55°	249.2	241.7	219.1	193.2	183.1
57.5°	223.3	215.7	194.8	170.6	162.2
60°	199.0	188.1	170.6	149.7	143.0
62.5°	172.3	163.9	148.8	131.3	139.6
65°	148.0	139.6	126.3	128.8	107.0
67.5°	121.3	117.1	105.4	93.7	90.3
70°	98.7	93.7	89.5	76.9	73.6
72.5°	78.6	73.6	67.7	61.0	58.5
75°	59.4	55.2	51.8	49.3	54.4
77.5°	41.0	39.3	36.8	34.3	33.4
80°	26.8	25.9	25.1	24.3	23.4
82.5°	15.9	15.9	15.9	15.9	15.9
85°	8.4	9.2	10.0	10.9	11.7
87.5°	5.0	5.0	5.9	6.7	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)