

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: P560042

Luminaire Tested: FSR-12-2-LD4-1STD-35-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560042
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-35-UNV-93-94-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1282.0 lumens
Efficiency: N/A
Efficacy: 77.2 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

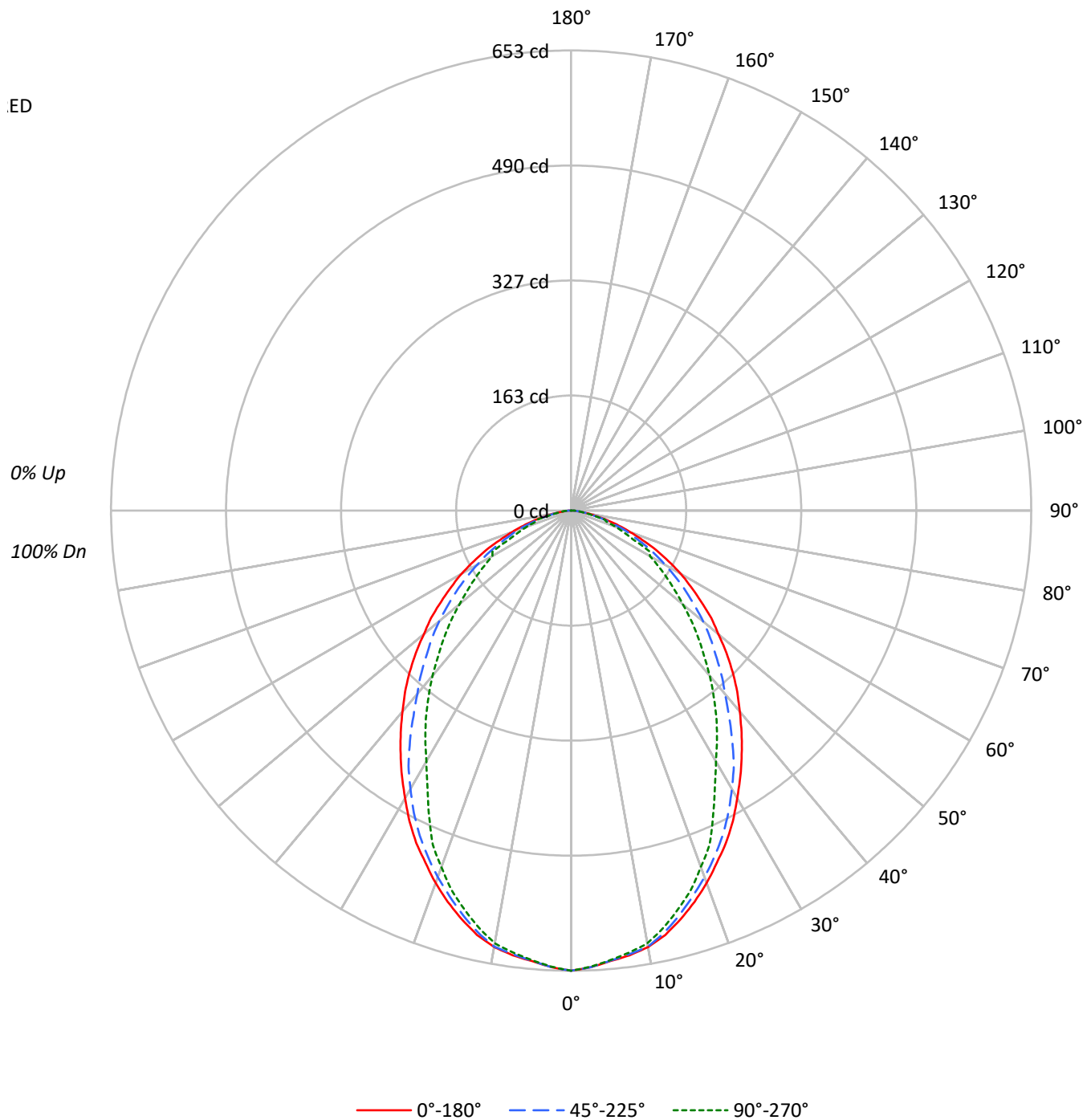
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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													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°	3514	3514	3514
5°	3467	3463	3459
10°	3437	3433	3408
15°	3344	3310	3264
20°	3221	3170	3083
25°	3089	3021	2833
30°	2928	2834	2552
35°	2773	2619	2361
40°	2615	2387	2148
45°	2465	2206	1942
50°	2282	2048	1732
55°	2111	1856	1551
60°	1934	1658	1390
65°	1701	1452	1230
70°	1402	1271	1045
75°	1115	973	1021
80°	750	700	654
85°	463	562	655

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2465 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.8	4.7
10°-20°	166.8	13.0
20°-30°	231.0	18.0
30°-40°	246.3	19.2
40°-50°	224.7	17.5
50°-60°	176.0	13.7
60°-70°	114.7	8.9
70°-80°	50.8	4.0
80°-90°	10.9	0.8
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°	458.6	35.8
0°-40°	704.9	55.0
0°-60°	1105.5	86.2
0°-90°	1282.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1282.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	653	653	653	653	653	
5°	642	641	641	640	640	61
15°	600	600	594	588	586	169
25°	520	517	509	491	477	239
35°	422	419	399	368	359	264
45°	324	317	290	266	255	249
55°	225	218	198	174	165	202
65°	134	126	114	116	97	132
75°	54	50	47	44	49	57
85°	8	8	9	10	11	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	653.0	653.0	653.0	653.0	653.0
2.5°	648.5	648.5	648.5	647.7	647.7
5°	641.7	641.0	641.0	640.2	640.2
7.5°	636.4	635.7	634.9	634.2	632.6
10°	628.9	628.9	628.1	624.3	623.6
12.5°	616.8	616.0	613.0	607.7	606.2
15°	600.2	600.2	594.1	588.1	585.8
17.5°	582.1	581.3	573.8	567.7	564.7
20°	562.4	560.9	553.4	543.6	538.3
22.5°	540.5	540.5	531.5	518.7	513.4
25°	520.2	517.1	508.8	490.7	477.1
27.5°	496.8	492.2	483.2	457.5	441.6
30°	471.1	468.8	456.0	422.8	410.7
32.5°	446.9	443.2	429.6	394.8	385.0
35°	422.0	419.0	398.6	368.4	359.4
37.5°	397.1	393.3	367.7	343.5	332.2
40°	372.2	367.7	339.7	317.8	305.8
42.5°	348.8	342.7	315.6	292.2	278.6
45°	323.9	317.1	289.9	265.7	255.2
47.5°	299.0	292.9	268.0	243.1	231.0
50°	272.5	267.3	244.6	219.7	206.9
52.5°	250.6	242.3	220.4	195.5	185.0
55°	225.0	218.2	197.8	174.4	165.3
57.5°	201.6	194.8	175.9	154.0	146.5
60°	179.7	169.9	154.0	135.1	129.1
62.5°	155.5	148.0	134.4	118.5	126.1
65°	133.6	126.1	114.0	116.3	96.6
67.5°	109.5	105.7	95.1	84.6	81.5
70°	89.1	84.6	80.8	69.5	66.4
72.5°	71.0	66.4	61.2	55.1	52.8
75°	53.6	49.8	46.8	44.5	49.1
77.5°	37.0	35.5	33.2	31.0	30.2
80°	24.2	23.4	22.6	21.9	21.1
82.5°	14.3	14.3	14.3	14.3	14.3
85°	7.5	8.3	9.1	9.8	10.6
87.5°	4.5	4.5	5.3	6.0	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)