

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: P590739

Luminaire Tested: FSR-24-2-LD4-4HI-35-UNV-93-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590739
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-4HI-35-UNV-93-96-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

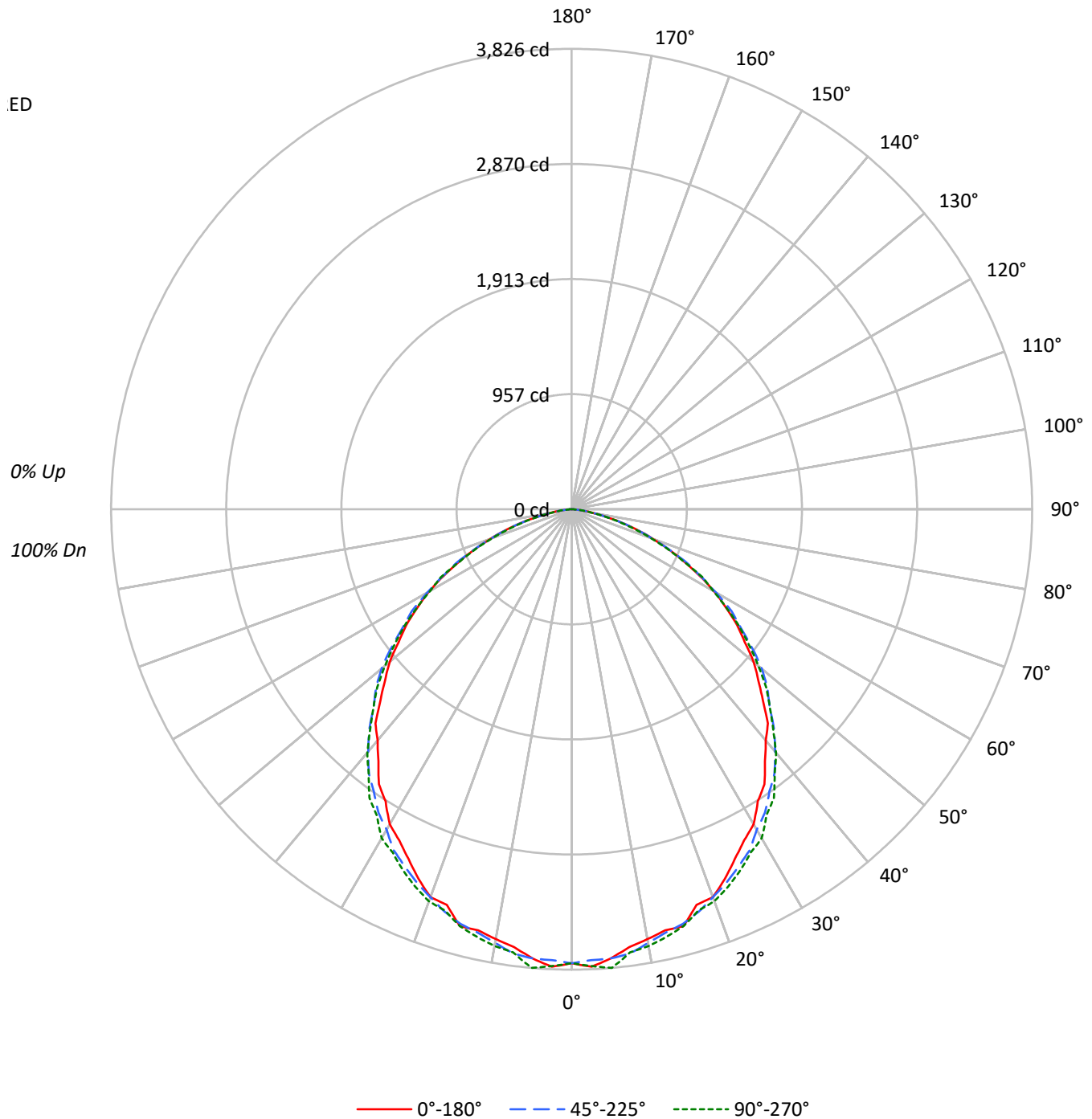
Lumens per Lamp: N/A
Luminaire Lumens: 9508.0 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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



TEST NUMBER: P590739
CATALOG NUMBER: FSR-24-2-LD4-4HI-35-UNV-93-96-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590739

CATALOG NUMBER: FSR-24-2-LD4-4HI-35-UNV-93-96-EDD

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			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88					86				
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75					73				
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64					62				
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43					41				
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38					36				
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34					32				
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31					29				
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28					26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10152	10152	10152
5°	10118	10122	10335
10°	9913	10000	10070
15°	9992	9937	9993
20°	9823	9823	9927
25°	9521	9729	9836
30°	9390	9555	9809
35°	9169	9409	9620
40°	8812	9236	9277
45°	8546	8850	8863
50°	8265	8638	8473
55°	7875	8028	7971
60°	7364	7437	7303
65°	6566	6734	6520
70°	5633	5653	5496
75°	4461	4452	4279
80°	2989	2906	2793
85°	1624	1609	1504

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 9078 cd/sqm



TEST NUMBER: P590739

CATALOG NUMBER: FSR-24-2-LD4-4HI-35-UNV-93-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	354.9	3.7
10°-20°	1005.7	10.6
20°-30°	1506.8	15.8
30°-40°	1785.8	18.8
40°-50°	1789.2	18.8
50°-60°	1518.7	16.0
60°-70°	1023.9	10.8
70°-80°	449.9	4.7
80°-90°	73.1	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°	2867.4	30.2
0°-40°	4653.2	48.9
0°-60°	7961.1	83.7
0°-90°	9508.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9508.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3772	3772	3772	3772	3772	
5°	3746	3737	3747	3736	3826	353
15°	3586	3545	3567	3586	3587	999
25°	3206	3224	3277	3320	3313	1482
35°	2791	2799	2864	2930	2928	1733
45°	2246	2287	2325	2385	2329	1737
55°	1678	1667	1711	1700	1699	1493
65°	1031	1018	1058	1017	1024	1026
75°	429	420	428	398	412	460
85°	53	51	52	51	49	76
90°	0	0	0	0	0	



TEST NUMBER: P590739

CATALOG NUMBER: FSR-24-2-LD4-4HI-35-UNV-93-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3772.5	3772.5	3772.5	3772.5	3772.5
2.5°	3805.2	3776.4	3749.6	3780.8	3799.8
5°	3745.7	3737.0	3747.2	3736.0	3826.1
7.5°	3668.8	3702.4	3721.9	3709.7	3715.1
10°	3627.9	3616.2	3659.5	3689.7	3685.3
12.5°	3584.0	3601.6	3604.0	3636.6	3639.6
15°	3586.5	3545.1	3567.0	3585.5	3587.0
17.5°	3447.2	3492.0	3507.1	3549.4	3496.8
20°	3430.1	3397.5	3430.1	3473.5	3466.6
22.5°	3325.4	3288.9	3359.0	3397.5	3395.0
25°	3206.5	3224.1	3276.7	3319.5	3312.7
27.5°	3102.3	3122.8	3197.8	3256.7	3218.7
30°	3021.9	3011.7	3075.0	3127.6	3156.8
32.5°	2878.2	2915.3	2989.3	3041.4	3013.6
35°	2791.0	2799.3	2864.1	2930.4	2928.4
37.5°	2638.6	2677.1	2768.1	2786.7	2769.6
40°	2508.5	2547.0	2629.3	2649.3	2641.0
42.5°	2412.6	2419.4	2490.0	2512.9	2476.4
45°	2245.5	2287.4	2325.4	2385.3	2328.8
47.5°	2103.3	2122.8	2204.6	2220.7	2190.9
50°	1974.2	1981.0	2063.3	2043.4	2023.9
52.5°	1812.0	1840.7	1887.0	1883.1	1860.2
55°	1678.5	1667.3	1711.2	1699.5	1699.0
57.5°	1518.3	1537.8	1573.8	1555.3	1525.6
60°	1368.2	1368.7	1381.9	1360.9	1357.0
62.5°	1201.2	1207.0	1209.9	1184.1	1226.0
65°	1031.2	1017.5	1057.5	1017.0	1023.9
67.5°	874.8	881.6	877.7	852.4	862.2
70°	716.0	724.8	718.5	689.7	698.5
72.5°	570.9	560.2	567.0	530.9	547.5
75°	429.1	420.4	428.2	398.0	411.6
77.5°	292.3	299.1	294.2	278.1	287.4
80°	192.9	187.5	187.5	178.3	180.2
82.5°	112.5	107.2	105.7	102.8	107.2
85°	52.6	51.1	52.1	50.7	48.7
87.5°	19.0	19.5	19.5	18.5	17.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)