

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: P560427

Luminaire Tested: FSR-12-2-LD4-2LO-35-UNV-93-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560427
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-LD4-2LO-35-UNV-93-94-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

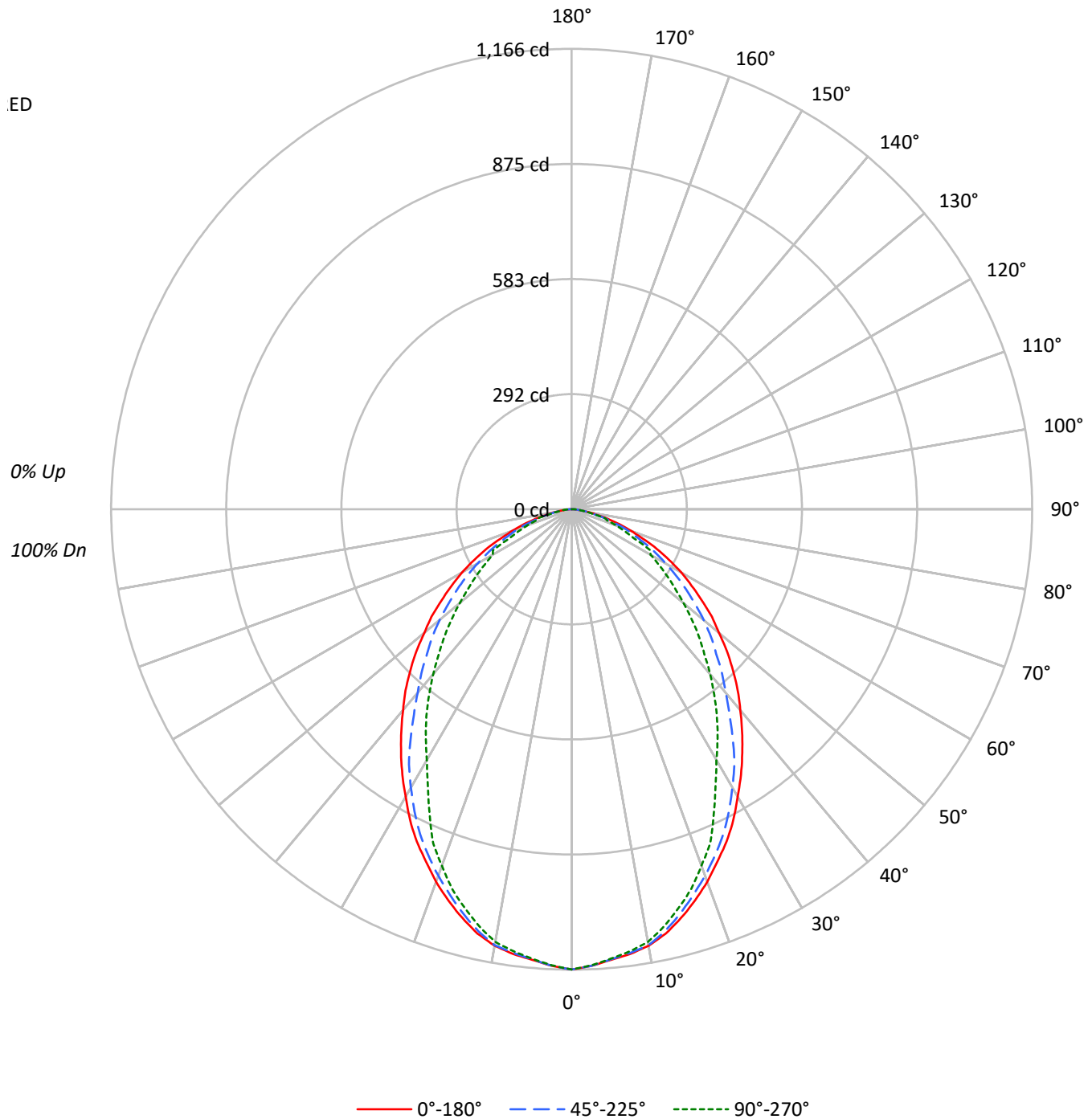
Lumens per Lamp: N/A
Luminaire Lumens: 2288.0 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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



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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			
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°	6273	6273	6273
5°	6188	6180	6173
10°	6134	6126	6082
15°	5969	5908	5826
20°	5749	5656	5502
25°	5513	5393	5056
30°	5225	5057	4555
35°	4949	4674	4213
40°	4667	4260	3834
45°	4399	3938	3466
50°	4073	3655	3091
55°	3767	3312	2769
60°	3452	2959	2480
65°	3037	2592	2197
70°	2502	2269	1866
75°	1990	1736	1822
80°	1336	1252	1168
85°	834	1000	1167

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4399 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.5	4.7
10°-20°	297.7	13.0
20°-30°	412.2	18.0
30°-40°	439.5	19.2
40°-50°	401.0	17.5
50°-60°	314.1	13.7
60°-70°	204.7	8.9
70°-80°	90.7	4.0
80°-90°	19.5	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°	818.4	35.8
0°-40°	1258.0	55.0
0°-60°	1973.1	86.2
0°-90°	2288.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2288.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1166	1166	1166	1166	1166	
5°	1145	1144	1144	1143	1143	109
15°	1071	1071	1060	1050	1046	301
25°	928	923	908	876	852	426
35°	753	748	711	658	641	471
45°	578	566	517	474	455	445
55°	402	389	353	311	295	360
65°	238	225	204	208	172	235
75°	96	89	84	80	88	103
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°	1165.5	1165.5	1165.5	1165.5	1165.5
2.5°	1157.4	1157.4	1157.4	1156.0	1156.0
5°	1145.3	1143.9	1143.9	1142.6	1142.6
7.5°	1135.8	1134.5	1133.1	1131.8	1129.1
10°	1122.4	1122.4	1121.0	1114.3	1112.9
12.5°	1100.8	1099.5	1094.1	1084.6	1081.9
15°	1071.2	1071.2	1060.4	1049.6	1045.6
17.5°	1038.8	1037.5	1024.0	1013.2	1007.8
20°	1003.8	1001.1	987.6	970.1	960.7
22.5°	964.7	964.7	948.5	925.6	916.2
25°	928.3	922.9	908.1	875.8	851.5
27.5°	886.6	878.5	862.3	816.5	788.2
30°	840.8	836.7	813.8	754.5	733.0
32.5°	797.6	790.9	766.7	704.7	687.2
35°	753.2	747.8	711.4	657.5	641.3
37.5°	708.7	702.0	656.2	613.1	592.8
40°	664.3	656.2	606.3	567.2	545.7
42.5°	622.5	611.7	563.2	521.4	497.2
45°	578.0	565.9	517.4	474.3	455.4
47.5°	533.6	522.8	478.3	433.9	412.3
50°	486.4	477.0	436.5	392.1	369.2
52.5°	447.3	432.5	393.4	349.0	330.1
55°	401.5	389.4	353.0	311.2	295.1
57.5°	359.7	347.6	313.9	274.9	261.4
60°	320.7	303.2	274.9	241.2	230.4
62.5°	277.6	264.1	239.8	211.5	225.0
65°	238.5	225.0	203.5	207.5	172.5
67.5°	195.4	188.6	169.8	150.9	145.5
70°	159.0	150.9	144.2	124.0	118.6
72.5°	126.7	118.6	109.1	98.4	94.3
75°	95.7	88.9	83.5	79.5	87.6
77.5°	66.0	63.3	59.3	55.2	53.9
80°	43.1	41.8	40.4	39.1	37.7
82.5°	25.6	25.6	25.6	25.6	25.6
85°	13.5	14.8	16.2	17.5	18.9
87.5°	8.1	8.1	9.4	10.8	12.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)