

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: P560603

Luminaire Tested: FSR-12-2-LD4-2STD-35-UNV-82-94-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P560603  
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-82-94-EDD  
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

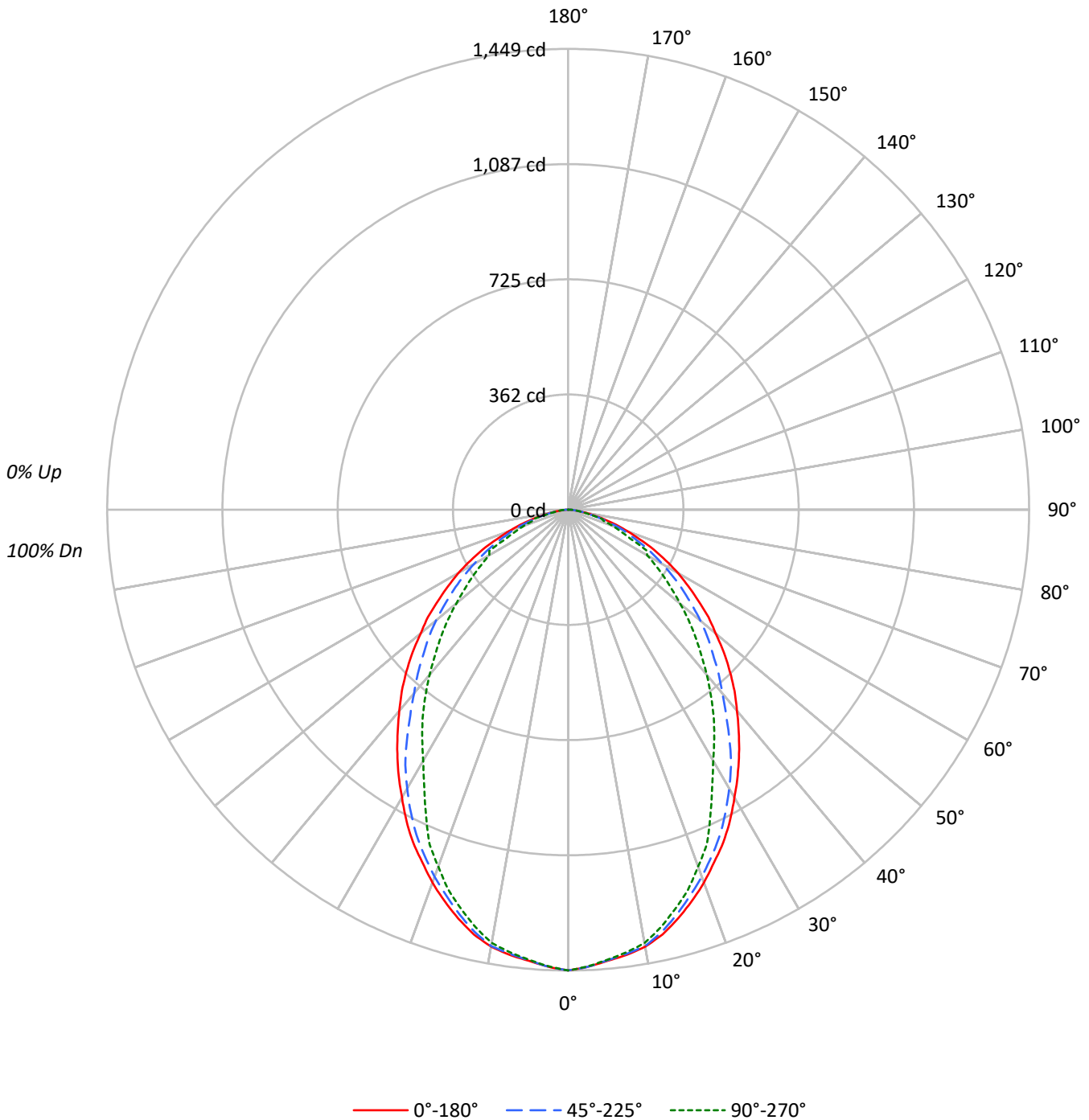
Lumens per Lamp: N/A  
Luminaire Lumens: 2844.0 lumens  
Efficiency: N/A  
Efficacy: 85.4 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7797	7797	7797
5°	7691	7682	7673
10°	7624	7615	7560
15°	7419	7344	7241
20°	7146	7031	6839
25°	6852	6703	6286
30°	6495	6287	5662
35°	6151	5810	5238
40°	5801	5295	4765
45°	5469	4895	4309
50°	5062	4543	3842
55°	4683	4117	3442
60°	4290	3678	3083
65°	3775	3221	2730
70°	3109	2820	2319
75°	2472	2158	2264
80°	1661	1556	1454
85°	1031	1241	1445

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5469 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.9	4.7
10°-20°	370.1	13.0
20°-30°	512.4	18.0
30°-40°	546.3	19.2
40°-50°	498.4	17.5
50°-60°	390.5	13.7
60°-70°	254.5	8.9
70°-80°	112.8	4.0
80°-90°	24.2	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°	1017.3	35.8
0°-40°	1563.7	55.0
0°-60°	2452.6	86.2
0°-90°	2844.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2844.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1449	1449	1449	1449	1449	
5°	1424	1422	1422	1420	1420	135
15°	1332	1332	1318	1305	1300	374
25°	1154	1147	1129	1089	1058	530
35°	936	930	884	817	797	585
45°	718	703	643	590	566	553
55°	499	484	439	387	367	448
65°	296	280	253	258	214	292
75°	119	110	104	99	109	127
85°	17	18	20	22	23	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1448.7	1448.7	1448.7	1448.7	1448.7
2.5°	1438.6	1438.6	1438.6	1437.0	1437.0
5°	1423.6	1421.9	1421.9	1420.2	1420.2
7.5°	1411.9	1410.2	1408.5	1406.8	1403.5
10°	1395.1	1395.1	1393.4	1385.1	1383.4
12.5°	1368.3	1366.6	1359.9	1348.2	1344.9
15°	1331.5	1331.5	1318.1	1304.7	1299.6
17.5°	1291.3	1289.6	1272.8	1259.4	1252.7
20°	1247.7	1244.4	1227.6	1205.9	1194.1
22.5°	1199.2	1199.2	1179.1	1150.6	1138.9
25°	1153.9	1147.2	1128.8	1088.6	1058.5
27.5°	1102.0	1092.0	1071.9	1014.9	979.8
30°	1045.1	1040.0	1011.6	937.9	911.1
32.5°	991.5	983.1	953.0	875.9	854.1
35°	936.2	929.5	884.3	817.3	797.2
37.5°	880.9	872.6	815.6	762.0	736.9
40°	825.7	815.6	753.7	705.1	678.3
42.5°	773.8	760.4	700.1	648.1	618.0
45°	718.5	703.4	643.1	589.5	566.1
47.5°	663.2	649.8	594.6	539.3	512.5
50°	604.6	592.9	542.6	487.4	458.9
52.5°	556.0	537.6	489.0	433.8	410.3
55°	499.1	484.0	438.8	386.9	366.8
57.5°	447.2	432.1	390.2	341.7	324.9
60°	398.6	376.8	341.7	299.8	286.4
62.5°	345.0	328.3	298.1	262.9	279.7
65°	296.4	279.7	252.9	257.9	214.4
67.5°	242.8	234.5	211.0	187.6	180.9
70°	197.6	187.6	179.2	154.1	147.4
72.5°	157.4	147.4	135.7	122.3	117.2
75°	118.9	110.5	103.8	98.8	108.9
77.5°	82.1	78.7	73.7	68.7	67.0
80°	53.6	51.9	50.2	48.6	46.9
82.5°	31.8	31.8	31.8	31.8	31.8
85°	16.7	18.4	20.1	21.8	23.4
87.5°	10.0	10.0	11.7	13.4	15.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)