

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: P560630

Luminaire Tested: FSR-12-2-LD4-2STD-40-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560630
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-40-UNV-80-87-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

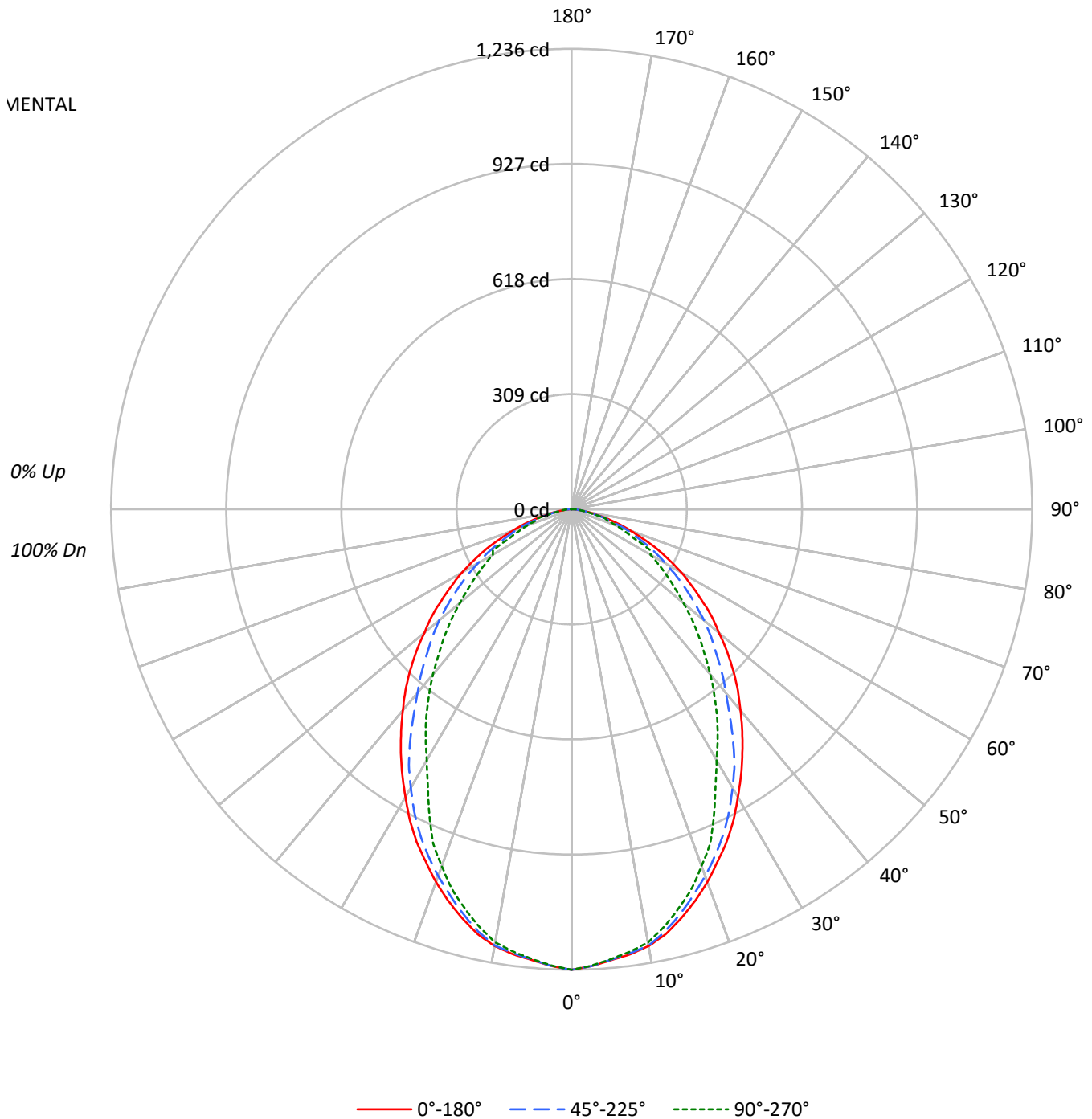
Lumens per Lamp: N/A
Luminaire Lumens: 2427.0 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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									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°	6654	6654	6654
5°	6563	6555	6548
10°	6506	6498	6451
15°	6331	6267	6180
20°	6098	6000	5836
25°	5847	5720	5364
30°	5542	5365	4832
35°	5249	4958	4470
40°	4950	4519	4066
45°	4666	4177	3677
50°	4320	3877	3279
55°	3996	3514	2937
60°	3662	3139	2631
65°	3222	2748	2329
70°	2653	2406	1980
75°	2111	1842	1932
80°	1416	1330	1240
85°	883	1062	1235

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4666 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.1	4.7
10°-20°	315.8	13.0
20°-30°	437.2	18.0
30°-40°	466.2	19.2
40°-50°	425.3	17.5
50°-60°	333.2	13.7
60°-70°	217.2	8.9
70°-80°	96.2	4.0
80°-90°	20.7	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°	868.2	35.8
0°-40°	1334.4	55.0
0°-60°	2092.9	86.2
0°-90°	2427.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2427.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1236	1236	1236	1236	1236	
5°	1215	1213	1213	1212	1212	115
15°	1136	1136	1125	1113	1109	319
25°	985	979	963	929	903	452
35°	799	793	755	698	680	499
45°	613	600	549	503	483	472
55°	426	413	374	330	313	382
65°	253	239	216	220	183	249
75°	102	94	89	84	93	109
85°	14	16	17	19	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1236.3	1236.3	1236.3	1236.3	1236.3
2.5°	1227.7	1227.7	1227.7	1226.3	1226.3
5°	1214.8	1213.4	1213.4	1212.0	1212.0
7.5°	1204.8	1203.4	1202.0	1200.6	1197.7
10°	1190.5	1190.5	1189.1	1182.0	1180.5
12.5°	1167.7	1166.2	1160.5	1150.5	1147.7
15°	1136.2	1136.2	1124.8	1113.4	1109.1
17.5°	1101.9	1100.5	1086.2	1074.8	1069.1
20°	1064.8	1061.9	1047.6	1029.0	1019.0
22.5°	1023.3	1023.3	1006.2	981.9	971.9
25°	984.7	979.0	963.3	929.0	903.3
27.5°	940.4	931.9	914.7	866.1	836.1
30°	891.8	887.5	863.3	800.4	777.5
32.5°	846.1	839.0	813.2	747.5	728.9
35°	798.9	793.2	754.6	697.5	680.3
37.5°	751.8	744.6	696.0	650.3	628.9
40°	704.6	696.0	643.2	601.7	578.8
42.5°	660.3	648.9	597.4	553.1	527.4
45°	613.1	600.3	548.8	503.1	483.1
47.5°	566.0	554.5	507.4	460.2	437.3
50°	516.0	505.9	463.1	415.9	391.6
52.5°	474.5	458.8	417.3	370.2	350.2
55°	425.9	413.0	374.5	330.2	313.0
57.5°	381.6	368.7	333.0	291.6	277.3
60°	340.2	321.6	291.6	255.8	244.4
62.5°	294.4	280.1	254.4	224.4	238.7
65°	253.0	238.7	215.8	220.1	182.9
67.5°	207.2	200.1	180.1	160.1	154.4
70°	168.6	160.1	152.9	131.5	125.8
72.5°	134.3	125.8	115.8	104.3	100.0
75°	101.5	94.3	88.6	84.3	92.9
77.5°	70.0	67.2	62.9	58.6	57.2
80°	45.7	44.3	42.9	41.4	40.0
82.5°	27.2	27.2	27.2	27.2	27.2
85°	14.3	15.7	17.2	18.6	20.0
87.5°	8.6	8.6	10.0	11.4	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)