

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: P590452

Luminaire Tested: FSR-24-2-LD4-3HI-35-UNV-93-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590452
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-LD4-3HI-35-UNV-93-97-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

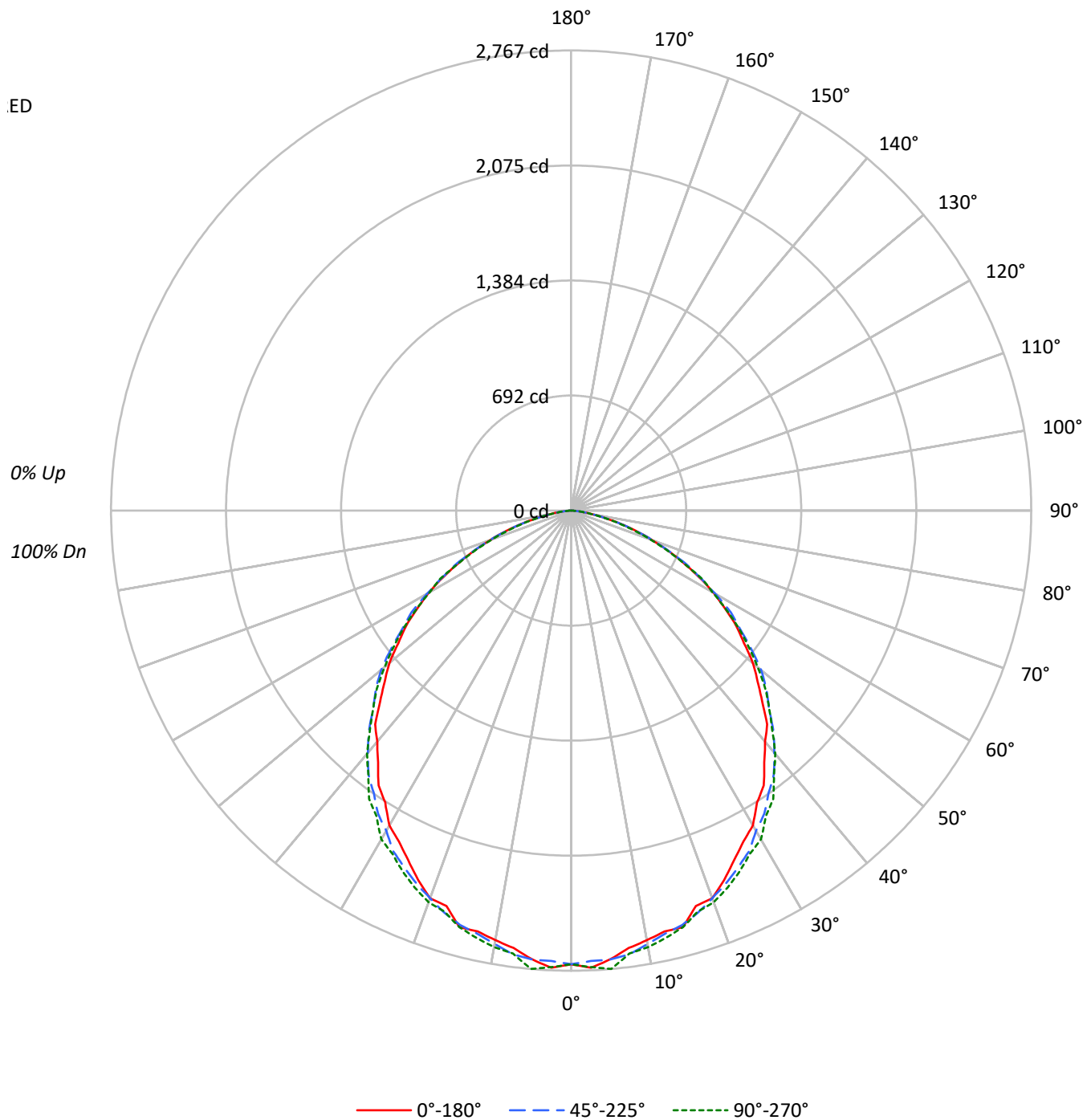
Lumens per Lamp: N/A
Luminaire Lumens: 6875.0 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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	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°	7340	7340	7340
5°	7316	7319	7473
10°	7168	7230	7282
15°	7225	7185	7226
20°	7102	7102	7178
25°	6884	7035	7112
30°	6790	6909	7093
35°	6630	6803	6956
40°	6372	6679	6708
45°	6179	6399	6408
50°	5976	6246	6126
55°	5694	5805	5764
60°	5324	5378	5281
65°	4748	4869	4714
70°	4073	4087	3974
75°	3226	3219	3094
80°	2162	2101	2019
85°	1173	1164	1087

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 6564 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	256.6	3.7
10°-20°	727.2	10.6
20°-30°	1089.5	15.8
30°-40°	1291.3	18.8
40°-50°	1293.7	18.8
50°-60°	1098.1	16.0
60°-70°	740.4	10.8
70°-80°	325.3	4.7
80°-90°	52.9	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°	2073.3	30.2
0°-40°	3364.6	48.9
0°-60°	5756.5	83.7
0°-90°	6875.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6875.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2728	2728	2728	2728	2728	
5°	2708	2702	2710	2701	2767	255
15°	2593	2563	2579	2593	2594	723
25°	2319	2331	2369	2400	2395	1072
35°	2018	2024	2071	2119	2118	1253
45°	1624	1654	1681	1725	1684	1256
55°	1214	1206	1237	1229	1228	1080
65°	746	736	765	735	740	742
75°	310	304	310	288	298	333
85°	38	37	38	37	35	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2727.8	2727.8	2727.8	2727.8	2727.8
2.5°	2751.4	2730.6	2711.3	2733.8	2747.5
5°	2708.5	2702.1	2709.5	2701.4	2766.6
7.5°	2652.8	2677.1	2691.2	2682.4	2686.3
10°	2623.2	2614.8	2646.1	2668.0	2664.8
12.5°	2591.5	2604.2	2606.0	2629.6	2631.7
15°	2593.3	2563.3	2579.2	2592.6	2593.6
17.5°	2492.6	2525.0	2535.9	2566.5	2528.5
20°	2480.2	2456.6	2480.2	2511.6	2506.6
22.5°	2404.5	2378.1	2428.8	2456.6	2454.9
25°	2318.6	2331.2	2369.3	2400.3	2395.3
27.5°	2243.2	2258.0	2312.2	2354.8	2327.4
30°	2185.1	2177.7	2223.5	2261.5	2282.6
32.5°	2081.2	2107.9	2161.5	2199.2	2179.1
35°	2018.1	2024.1	2071.0	2118.9	2117.5
37.5°	1907.9	1935.7	2001.6	2015.0	2002.6
40°	1813.9	1841.7	1901.2	1915.6	1909.7
42.5°	1744.5	1749.4	1800.5	1817.0	1790.6
45°	1623.7	1654.0	1681.4	1724.7	1683.9
47.5°	1520.8	1534.9	1594.1	1605.7	1584.2
50°	1427.5	1432.4	1491.9	1477.5	1463.4
52.5°	1310.2	1331.0	1364.4	1361.6	1345.1
55°	1213.7	1205.6	1237.3	1228.8	1228.5
57.5°	1097.8	1111.9	1138.0	1124.6	1103.1
60°	989.3	989.7	999.2	984.1	981.2
62.5°	868.5	872.8	874.9	856.2	886.5
65°	745.6	735.8	764.6	735.4	740.3
67.5°	632.6	637.5	634.7	616.4	623.4
70°	517.7	524.1	519.5	498.7	505.1
72.5°	412.8	405.0	410.0	383.9	395.9
75°	310.3	304.0	309.6	287.8	297.6
77.5°	211.3	216.3	212.7	201.1	207.8
80°	139.5	135.6	135.6	128.9	130.3
82.5°	81.4	77.5	76.4	74.3	77.5
85°	38.0	37.0	37.7	36.6	35.2
87.5°	13.7	14.1	14.1	13.4	12.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)