

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: P973164

Luminaire Tested: FLR2-14-20HE-L935-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973164
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR2-14-20HE-L935-CP187
Description: 1*4 FLR-2.0 2000 Lumen High Efficacy at 3500CCT & 90 CRI with Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

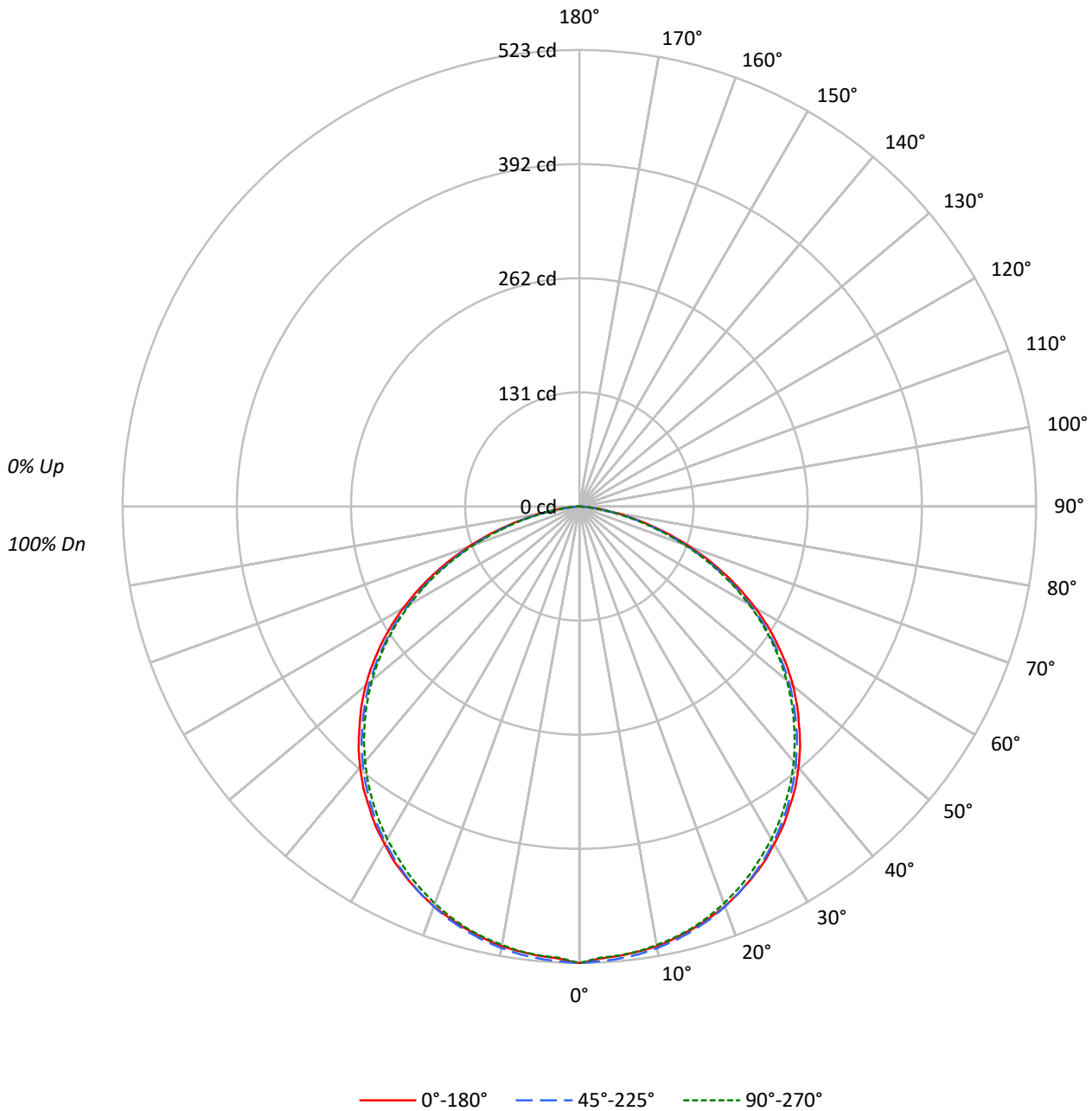
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1464.3 lumens
Efficiency: N/A
Efficacy: 98.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 14.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor:
Total Harmonic Distortion (THDi):
Frequency (hertz): 60
Stabilization Time: HR
Operation Time: HR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P973164
CATALOG NUMBER: FLR2-14-20HE-L935-CP187

Luminous Intensity Polar Plot





TEST NUMBER: P973164
 CATALOG NUMBER: FLR2-14-20HE-L935-CP187

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	39	32	27	38	32	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1408	1408	1408
5°	1397	1405	1395
10°	1398	1404	1394
15°	1396	1401	1393
20°	1396	1397	1386
25°	1393	1390	1377
30°	1387	1381	1367
35°	1379	1369	1355
40°	1371	1355	1341
45°	1355	1336	1322
50°	1337	1313	1297
55°	1303	1273	1261
60°	1253	1218	1207
65°	1174	1139	1126
70°	1058	1016	1007
75°	887	842	833
80°	645	601	584
85°	340	299	275

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1355 cd/sqm



TEST NUMBER: P973164
 CATALOG NUMBER: FLR2-14-20HE-L935-CP187

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.6	3.4
10°-20°	142.3	9.7
20°-30°	216.2	14.8
30°-40°	261.5	17.9
40°-50°	271.8	18.6
50°-60°	243.4	16.6
60°-70°	177.5	12.1
70°-80°	87.4	6.0
80°-90°	14.6	1.0
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°	408.1	27.9
0°-40°	669.6	45.7
0°-60°	1184.8	80.9
0°-90°	1464.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1464.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	523	523	523	523	523	
5°	517	523	520	525	516	49
15°	501	506	503	507	500	142
25°	469	471	468	470	464	216
35°	420	421	417	418	412	263
45°	356	356	351	352	347	275
55°	278	276	271	271	269	248
65°	184	182	179	178	177	182
75°	85	84	81	80	80	91
85°	11	11	10	9	9	16
90°	0	0	0	0	0	



TEST NUMBER: P973164
 CATALOG NUMBER: FLR2-14-20HE-L935-CP187

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	523.2	523.2	523.2	523.2	523.2
2.5°	518.6	524.5	521.7	526.9	517.6
5°	517.1	522.8	520.2	525.1	516.5
7.5°	514.5	520.4	517.6	522.3	514.1
10°	511.7	516.9	513.9	518.6	510.2
12.5°	506.7	511.9	509.1	513.4	505.6
15°	501.1	505.6	503.0	507.4	500.0
17.5°	494.6	498.9	496.1	500.0	492.7
20°	487.5	490.9	487.9	491.1	484.0
22.5°	478.6	481.8	478.6	480.7	474.5
25°	469.1	471.4	468.2	470.3	463.9
27.5°	458.9	460.2	456.9	458.7	451.9
30°	446.3	447.8	444.4	446.5	440.0
32.5°	434.2	435.1	431.2	432.9	427.0
35°	419.9	420.8	416.6	418.4	412.5
37.5°	406.3	406.0	401.7	402.8	397.8
40°	390.4	390.2	385.7	386.5	381.8
42.5°	374.2	373.3	369.0	369.4	365.1
45°	356.0	355.6	351.0	351.7	347.3
47.5°	338.5	337.2	332.6	332.8	329.2
50°	319.4	317.5	313.6	313.1	309.9
52.5°	299.1	296.9	292.6	292.1	289.7
55°	277.8	275.5	271.3	270.7	268.7
57.5°	256.0	252.9	249.7	248.4	246.9
60°	232.8	230.0	226.3	225.0	224.3
62.5°	208.8	205.9	203.1	201.8	201.0
65°	184.3	182.1	178.9	177.6	176.9
67.5°	159.4	157.4	154.4	152.9	152.7
70°	134.5	132.5	129.1	128.2	128.0
72.5°	109.6	107.8	104.6	103.7	103.7
75°	85.3	83.8	81.0	80.1	80.1
77.5°	62.4	61.1	58.9	57.8	57.8
80°	41.6	40.7	38.8	37.9	37.7
82.5°	24.0	23.6	21.9	21.0	21.4
85°	11.0	10.6	9.7	8.7	8.9
87.5°	2.8	2.6	1.9	1.5	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)