

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P302599

Luminaire Tested: **FSP-24-31-40-CP187**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P302599  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-17)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FSP-24-31-40-CP187  
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .187"  
Light Source: (266) 4000 CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: 

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

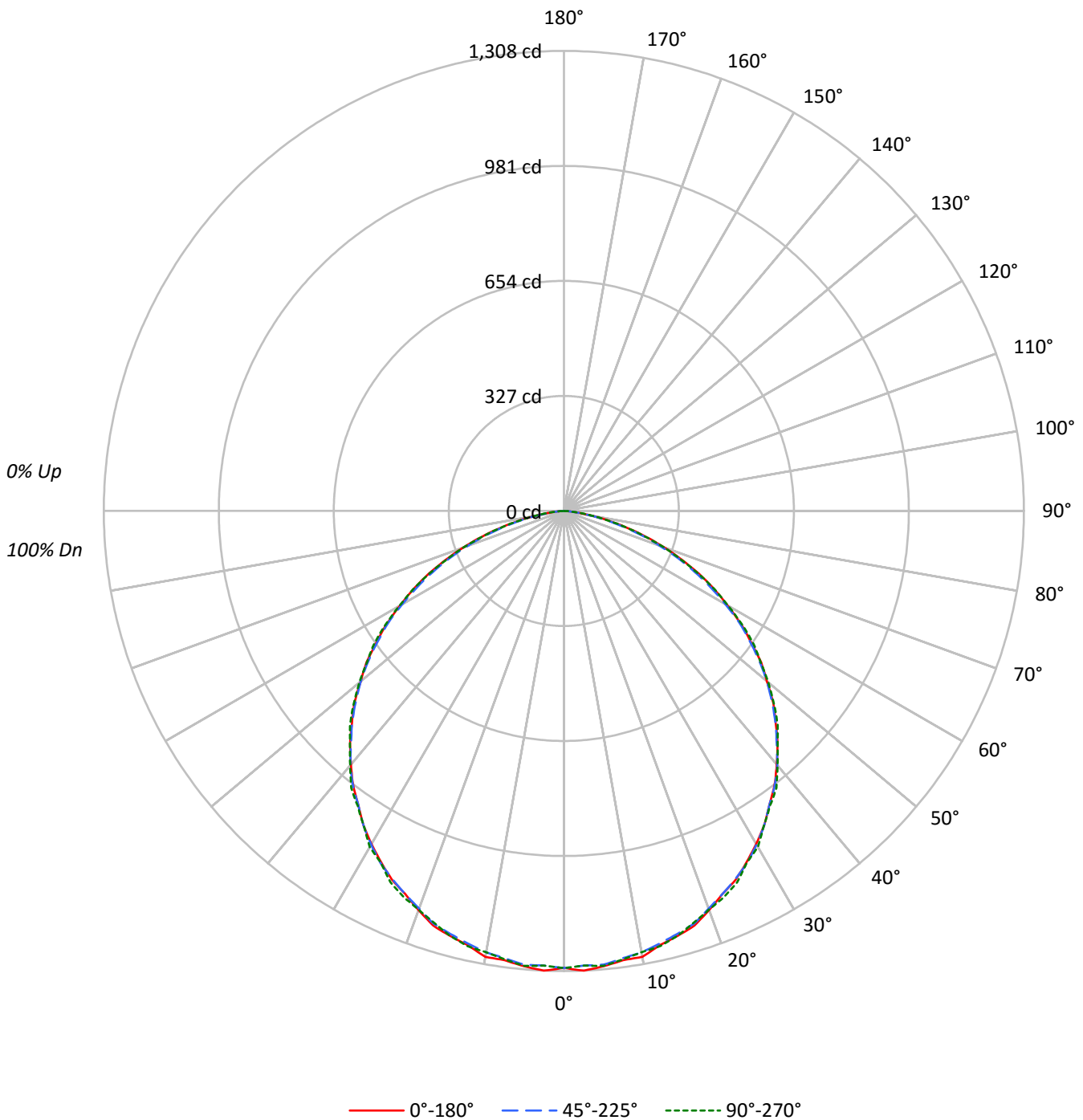
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3524.7 lumens  
Efficiency: N/A  
Efficacy: 119.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 29.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: 25 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	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	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60
4	83	72	63	56	81	70	62	56	68	61	55	66	59	55	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	1748	1748	1748
5°	1755	1749	1753
10°	1758	1740	1740
15°	1742	1734	1742
20°	1729	1722	1727
25°	1717	1714	1730
30°	1699	1702	1714
35°	1674	1674	1680
40°	1654	1658	1660
45°	1621	1619	1636
50°	1577	1577	1589
55°	1524	1514	1545
60°	1447	1426	1453
65°	1353	1311	1342
70°	1197	1145	1197
75°	984	921	972
80°	677	643	694
85°	324	307	324



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.9	3.5
10°-20°	352.1	10.0
20°-30°	532.6	15.1
30°-40°	639.7	18.1
40°-50°	657.1	18.6
50°-60°	579.7	16.4
60°-70°	412.7	11.7
70°-80°	196.3	5.6
80°-90°	31.6	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°	1007.6	28.6
0°-40°	1647.2	46.7
0°-60°	2884.1	81.8
0°-90°	3524.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3524.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1299	1299	1299	1299	1299	
5°	1299	1298	1295	1292	1298	123
15°	1250	1247	1245	1249	1250	353
25°	1156	1154	1154	1156	1165	532
35°	1019	1020	1019	1029	1023	639
45°	852	851	851	857	860	658
55°	650	651	645	650	658	581
65°	425	422	412	415	422	419
75°	189	185	177	180	187	202
85°	21	20	20	21	21	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1299.2	1299.2	1299.2	1299.2	1299.2
2.5°	1308.1	1298.1	1293.7	1291.5	1293.7
5°	1299.2	1298.1	1294.8	1291.5	1298.1
7.5°	1288.1	1285.9	1282.6	1280.4	1285.9
10°	1287.0	1278.2	1273.8	1274.9	1273.8
12.5°	1263.8	1264.9	1259.4	1261.6	1267.1
15°	1250.5	1247.2	1245.0	1249.4	1250.5
17.5°	1236.1	1235.0	1230.6	1224.0	1227.3
20°	1207.4	1206.3	1202.9	1208.5	1206.3
22.5°	1178.6	1185.2	1178.6	1186.3	1188.5
25°	1156.5	1154.2	1154.2	1156.5	1165.3
27.5°	1125.5	1122.2	1128.8	1123.3	1126.6
30°	1093.4	1090.1	1095.6	1095.6	1103.3
32.5°	1060.2	1056.9	1060.2	1058.0	1059.1
35°	1019.2	1020.3	1019.2	1029.2	1022.6
37.5°	983.8	981.6	984.9	984.9	992.7
40°	941.8	941.8	944.0	941.8	945.1
42.5°	899.7	893.1	895.3	898.6	899.7
45°	852.1	851.0	851.0	856.6	859.9
47.5°	807.9	803.4	802.3	804.5	810.1
50°	753.6	753.6	753.6	757.0	759.2
52.5°	707.2	703.8	700.5	702.7	704.9
55°	649.6	650.7	645.2	649.6	658.5
57.5°	596.5	595.4	592.1	592.1	600.9
60°	537.8	537.8	530.1	535.6	540.0
62.5°	482.5	481.4	470.3	473.6	483.6
65°	425.0	421.6	411.7	415.0	421.6
67.5°	364.1	360.8	351.9	354.1	359.7
70°	304.3	302.1	291.1	294.4	304.3
72.5°	245.7	241.3	234.6	235.7	242.4
75°	189.2	184.8	177.1	180.4	187.0
77.5°	136.1	133.9	128.4	129.5	136.1
80°	87.4	86.3	83.0	85.2	89.6
82.5°	50.9	48.7	45.4	47.6	49.8
85°	21.0	19.9	19.9	21.0	21.0
87.5°	4.4	4.4	5.5	5.5	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)