

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: P302593

Luminaire Tested: **FSP-24-31-35-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: P302593  
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-24-31-35-CP187  
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .187"  
Light Source: (266) 3500 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

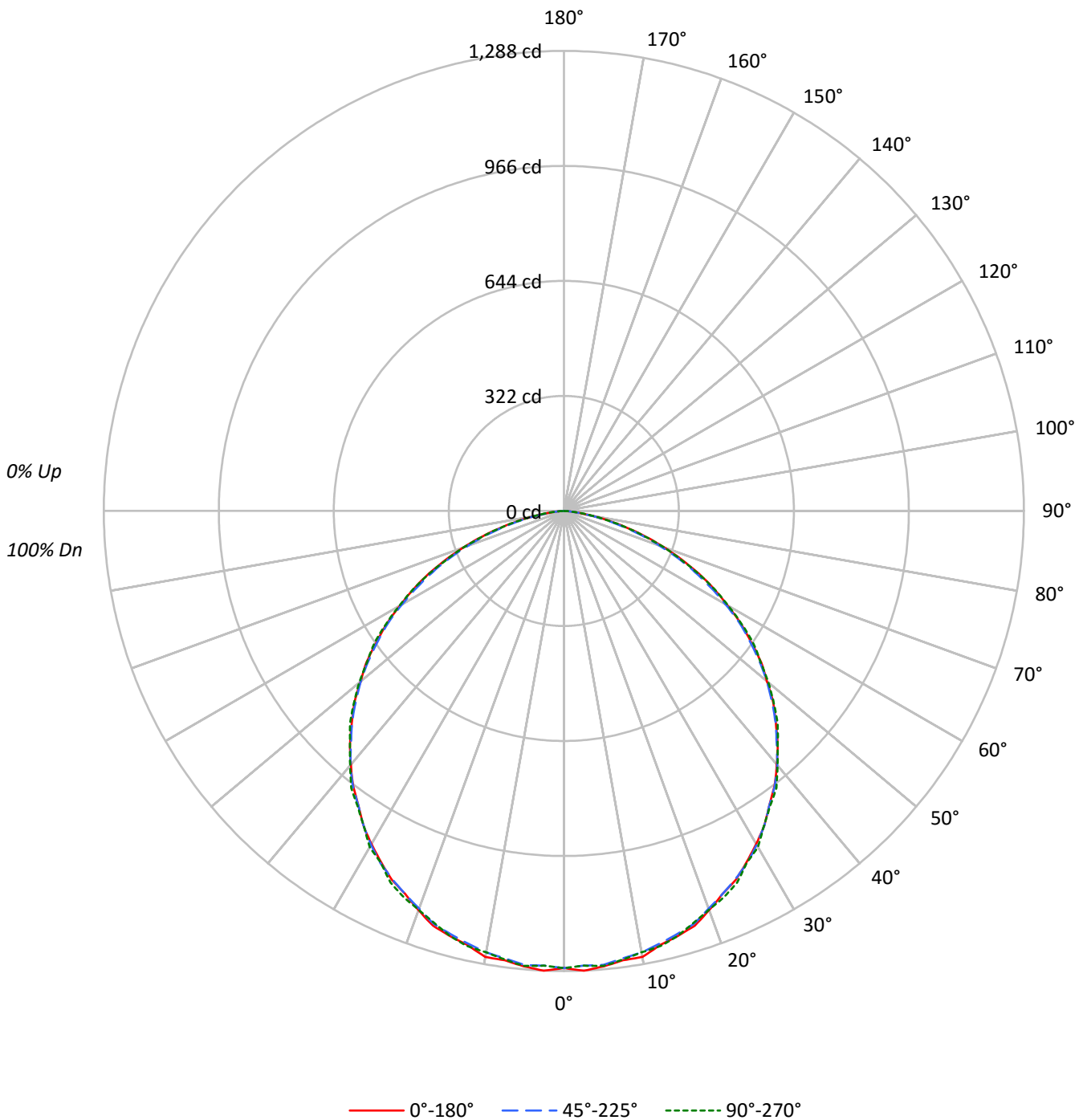
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3471.5 lumens  
Efficiency: N/A  
Efficacy: 118.5 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): 29.3  
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°	1722	1722	1722
5°	1728	1722	1727
10°	1732	1714	1714
15°	1716	1708	1716
20°	1703	1696	1701
25°	1691	1688	1704
30°	1673	1677	1688
35°	1649	1649	1654
40°	1629	1633	1635
45°	1597	1595	1611
50°	1554	1554	1565
55°	1501	1491	1521
60°	1425	1405	1431
65°	1332	1291	1322
70°	1179	1128	1179
75°	969	907	958
80°	667	633	684
85°	320	303	320



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.0	3.5
10°-20°	346.8	10.0
20°-30°	524.5	15.1
30°-40°	630.0	18.1
40°-50°	647.2	18.6
50°-60°	571.0	16.4
60°-70°	406.4	11.7
70°-80°	193.3	5.6
80°-90°	31.2	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°	992.3	28.6
0°-40°	1622.4	46.7
0°-60°	2840.5	81.8
0°-90°	3471.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3471.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1280	1280	1280	1280	1280	
5°	1280	1278	1275	1272	1278	122
15°	1232	1228	1226	1231	1232	348
25°	1139	1137	1137	1139	1148	524
35°	1004	1005	1004	1014	1007	629
45°	839	838	838	844	847	648
55°	640	641	635	640	648	572
65°	418	415	406	409	415	412
75°	186	182	174	178	184	199
85°	21	20	20	21	21	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1279.6	1279.6	1279.6	1279.6	1279.6
2.5°	1288.3	1278.5	1274.2	1272.0	1274.2
5°	1279.6	1278.5	1275.3	1272.0	1278.5
7.5°	1268.7	1266.5	1263.3	1261.1	1266.5
10°	1267.6	1258.9	1254.5	1255.6	1254.5
12.5°	1244.7	1245.8	1240.4	1242.6	1248.0
15°	1231.7	1228.4	1226.2	1230.6	1231.7
17.5°	1217.5	1216.4	1212.0	1205.5	1208.8
20°	1189.1	1188.1	1184.8	1190.2	1188.1
22.5°	1160.8	1167.3	1160.8	1168.4	1170.6
25°	1139.0	1136.8	1136.8	1139.0	1147.7
27.5°	1108.5	1105.2	1111.8	1106.3	1109.6
30°	1076.9	1073.6	1079.1	1079.1	1086.7
32.5°	1044.2	1040.9	1044.2	1042.0	1043.1
35°	1003.9	1004.9	1003.9	1013.7	1007.1
37.5°	969.0	966.8	970.1	970.1	977.7
40°	927.6	927.6	929.7	927.6	930.8
42.5°	886.1	879.6	881.8	885.0	886.1
45°	839.3	838.2	838.2	843.6	846.9
47.5°	795.7	791.3	790.2	792.4	797.9
50°	742.3	742.3	742.3	745.5	747.7
52.5°	696.5	693.2	689.9	692.1	694.3
55°	639.8	640.9	635.4	639.8	648.5
57.5°	587.5	586.4	583.1	583.1	591.8
60°	529.7	529.7	522.1	527.5	531.9
62.5°	475.2	474.1	463.2	466.5	476.3
65°	418.5	415.3	405.5	408.7	415.3
67.5°	358.6	355.3	346.6	348.8	354.2
70°	299.7	297.6	286.7	289.9	299.7
72.5°	242.0	237.6	231.1	232.2	238.7
75°	186.4	182.0	174.4	177.7	184.2
77.5°	134.1	131.9	126.4	127.5	134.1
80°	86.1	85.0	81.7	83.9	88.3
82.5°	50.1	48.0	44.7	46.9	49.0
85°	20.7	19.6	19.6	20.7	20.7
87.5°	4.4	4.4	5.4	5.4	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)