

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: P302590

Luminaire Tested: **FSP-24-31-35-CA08**

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: P302590  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-14)  
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-CA08  
Description: 2x4 Fail Safe Flat Panel Clear Acrylic Lens .08"  
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

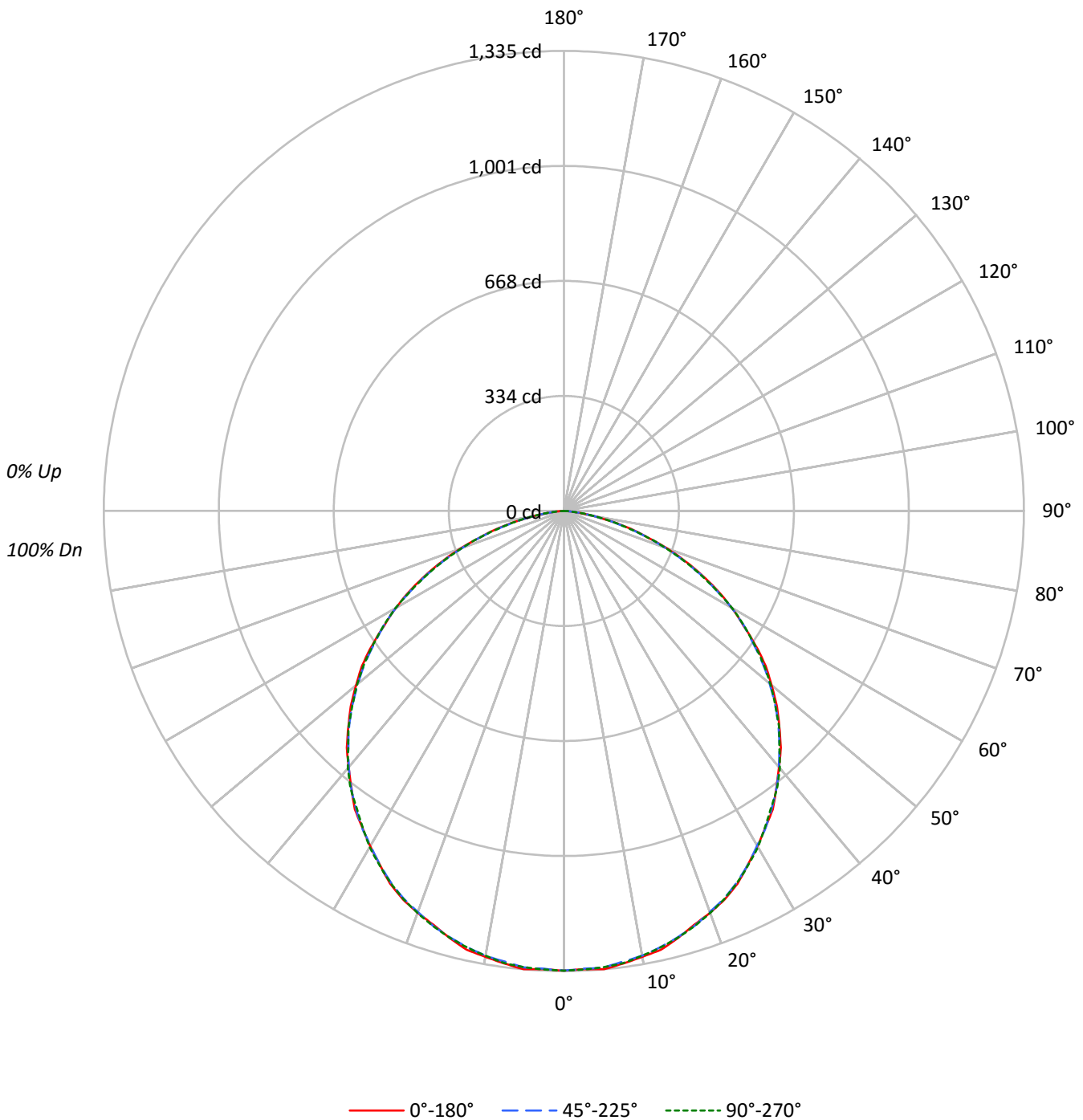
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3657.5 lumens  
Efficiency: N/A  
Efficacy: 124.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37  
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	102	99	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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

	0°	45°	90°
0°	1795	1795	1795
5°	1803	1796	1794
10°	1795	1790	1790
15°	1786	1783	1785
20°	1776	1773	1778
25°	1771	1765	1767
30°	1745	1742	1750
35°	1736	1729	1724
40°	1705	1705	1713
45°	1682	1676	1680
50°	1648	1632	1639
55°	1592	1575	1582
60°	1514	1514	1517
65°	1412	1399	1395
70°	1259	1234	1238
75°	1055	1022	1011
80°	724	724	732
85°	381	381	415



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.2	3.5
10°-20°	361.4	9.9
20°-30°	547.3	15.0
30°-40°	658.2	18.0
40°-50°	679.5	18.6
50°-60°	603.6	16.5
60°-70°	434.5	11.9
70°-80°	210.2	5.7
80°-90°	36.6	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°	1034.9	28.3
0°-40°	1693.1	46.3
0°-60°	2976.2	81.4
0°-90°	3657.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3657.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1334	1334	1334	1334	1334	
5°	1335	1332	1330	1325	1329	127
15°	1282	1281	1280	1277	1281	362
25°	1193	1188	1189	1189	1190	548
35°	1057	1054	1052	1054	1049	659
45°	884	883	881	881	883	682
55°	679	678	671	674	674	606
65°	444	440	439	435	438	438
75°	203	199	196	196	194	213
85°	25	25	25	25	27	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1333.9	1333.9	1333.9	1333.9	1333.9
2.5°	1330.7	1330.7	1329.6	1330.7	1331.8
5°	1335.0	1331.8	1329.6	1325.3	1328.6
7.5°	1324.3	1321.0	1318.9	1315.7	1323.2
10°	1313.5	1313.5	1310.3	1304.9	1310.3
12.5°	1303.8	1297.4	1296.3	1295.3	1297.4
15°	1282.4	1281.3	1280.2	1277.0	1281.3
17.5°	1258.7	1262.0	1262.0	1262.0	1263.0
20°	1240.5	1238.3	1238.3	1238.3	1241.6
22.5°	1220.1	1215.8	1216.9	1212.6	1217.9
25°	1193.2	1187.9	1188.9	1188.9	1190.0
27.5°	1156.7	1156.7	1156.7	1157.8	1158.9
30°	1123.4	1125.6	1121.3	1120.2	1126.6
32.5°	1089.0	1089.0	1090.1	1085.8	1086.9
35°	1056.8	1053.6	1052.5	1053.6	1049.3
37.5°	1012.8	1014.9	1013.9	1012.8	1016.0
40°	970.9	974.1	970.9	969.8	975.2
42.5°	932.2	929.0	925.8	923.6	925.8
45°	883.9	882.8	880.7	880.7	882.8
47.5°	838.8	836.7	831.3	830.2	831.3
50°	787.2	785.1	779.7	784.0	783.0
52.5°	737.8	733.5	728.2	730.3	730.3
55°	678.8	677.7	671.3	674.5	674.5
57.5°	617.6	621.9	619.7	618.6	619.7
60°	562.8	566.0	562.8	559.6	563.9
62.5°	505.9	503.7	499.4	499.4	499.4
65°	443.6	440.3	439.3	435.0	438.2
67.5°	382.3	379.1	377.0	375.9	375.9
70°	320.1	317.9	313.6	312.5	314.7
72.5°	255.6	256.7	254.5	252.4	255.6
75°	203.0	198.7	196.5	195.5	194.4
77.5°	143.9	141.8	140.7	140.7	141.8
80°	93.4	93.4	93.4	93.4	94.5
82.5°	53.7	54.8	53.7	55.8	56.9
85°	24.7	24.7	24.7	24.7	26.9
87.5°	8.6	7.5	7.5	8.6	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)