

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: P302596

Luminaire Tested: **FSP-24-31-40-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: P302596  
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-24-31-40-CA08  
Description: 2x4 Fail Safe Flat Panel Clear Acrylic Lens .08"  
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

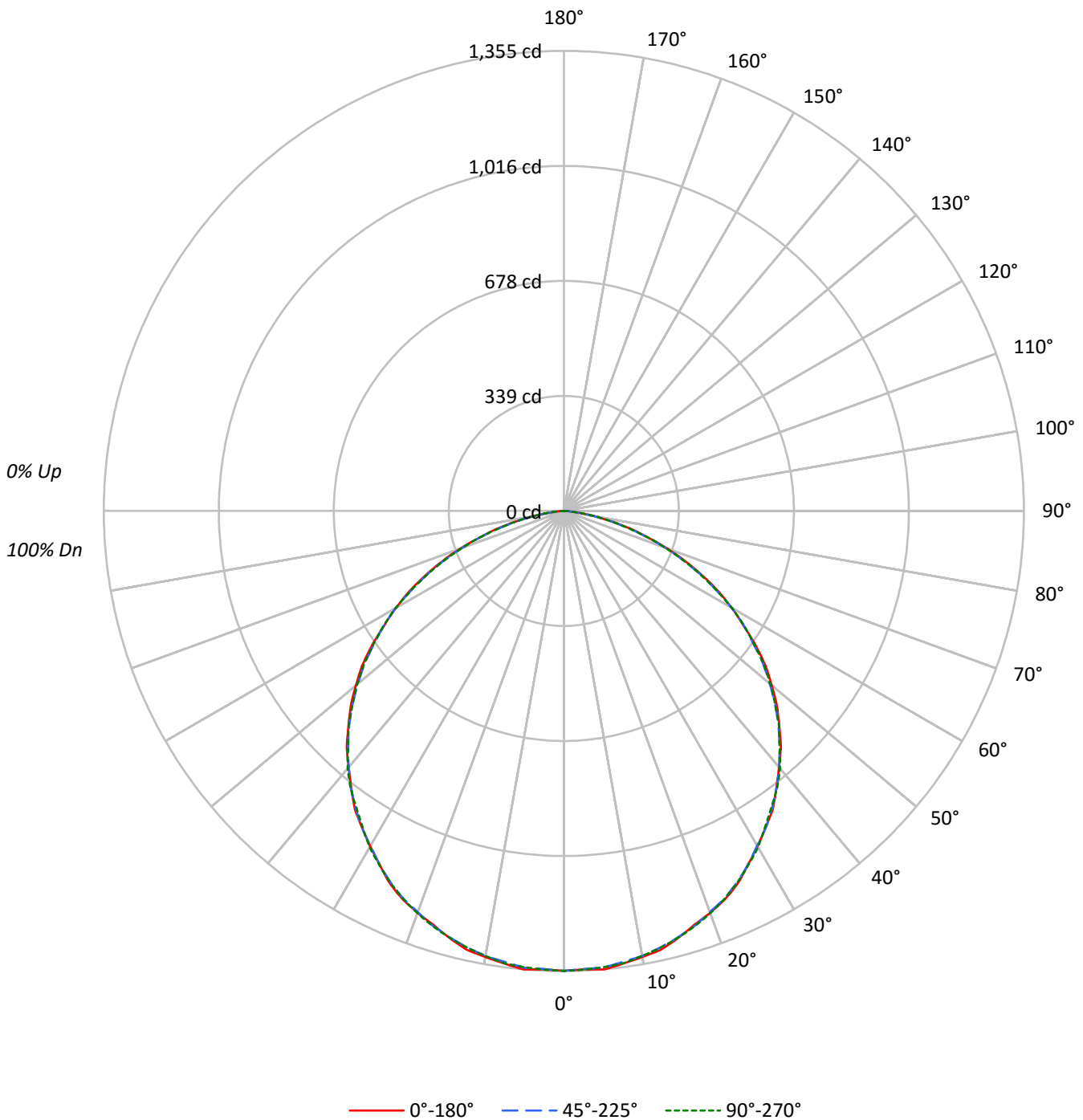
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3713.5 lumens  
Efficiency: N/A  
Efficacy: 126.3 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): 29.4  
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	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°	1822	1822	1822
5°	1831	1823	1822
10°	1822	1818	1818
15°	1814	1811	1812
20°	1803	1800	1805
25°	1799	1792	1794
30°	1772	1769	1777
35°	1762	1755	1750
40°	1731	1731	1739
45°	1708	1701	1706
50°	1673	1657	1664
55°	1617	1599	1606
60°	1538	1538	1541
65°	1434	1420	1416
70°	1279	1253	1257
75°	1071	1038	1026
80°	735	735	744
85°	387	387	421



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.1	3.5
10°-20°	366.9	9.9
20°-30°	555.7	15.0
30°-40°	668.3	18.0
40°-50°	689.9	18.6
50°-60°	612.8	16.5
60°-70°	441.1	11.9
70°-80°	213.4	5.7
80°-90°	37.2	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°	1050.7	28.3
0°-40°	1719.1	46.3
0°-60°	3021.8	81.4
0°-90°	3713.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3713.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1354	1354	1354	1354	1354	
5°	1355	1352	1350	1346	1349	128
15°	1302	1301	1300	1297	1301	367
25°	1212	1206	1207	1207	1208	557
35°	1073	1070	1069	1070	1065	669
45°	897	896	894	894	896	693
55°	689	688	682	685	685	615
65°	450	447	446	442	445	445
75°	206	202	200	198	197	216
85°	25	25	25	25	27	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1354.4	1354.4	1354.4	1354.4	1354.4
2.5°	1351.1	1351.1	1350.0	1351.1	1352.2
5°	1355.4	1352.2	1350.0	1345.6	1348.9
7.5°	1344.5	1341.3	1339.1	1335.8	1343.4
10°	1333.6	1333.6	1330.4	1324.9	1330.4
12.5°	1323.8	1317.3	1316.2	1315.1	1317.3
15°	1302.0	1300.9	1299.8	1296.6	1300.9
17.5°	1278.0	1281.3	1281.3	1281.3	1282.4
20°	1259.5	1257.3	1257.3	1257.3	1260.6
22.5°	1238.8	1234.4	1235.5	1231.1	1236.6
25°	1211.5	1206.1	1207.1	1207.1	1208.2
27.5°	1174.4	1174.4	1174.4	1175.5	1176.6
30°	1140.6	1142.8	1138.4	1137.4	1143.9
32.5°	1105.7	1105.7	1106.8	1102.5	1103.5
35°	1073.0	1069.7	1068.7	1069.7	1065.4
37.5°	1028.3	1030.5	1029.4	1028.3	1031.6
40°	985.8	989.0	985.8	984.7	990.1
42.5°	946.5	943.2	940.0	937.8	940.0
45°	897.4	896.4	894.2	894.2	896.4
47.5°	851.7	849.5	844.0	842.9	844.0
50°	799.3	797.1	791.7	796.0	794.9
52.5°	749.1	744.8	739.3	741.5	741.5
55°	689.2	688.1	681.5	684.8	684.8
57.5°	627.0	631.4	629.2	628.1	629.2
60°	571.4	574.7	571.4	568.1	572.5
62.5°	513.6	511.4	507.1	507.1	507.1
65°	450.4	447.1	446.0	441.6	444.9
67.5°	388.2	384.9	382.8	381.7	381.7
70°	325.0	322.8	318.4	317.3	319.5
72.5°	259.5	260.6	258.4	256.3	259.5
75°	206.1	201.7	199.6	198.5	197.4
77.5°	146.1	143.9	142.9	142.9	143.9
80°	94.9	94.9	94.9	94.9	96.0
82.5°	54.5	55.6	54.5	56.7	57.8
85°	25.1	25.1	25.1	25.1	27.3
87.5°	8.7	7.6	7.6	8.7	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)