

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: P302614

Luminaire Tested: **FSP-24-47-35-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: P302614
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-24-47-35-CA08
Description: 2x4 Fail Safe Flat Panel Clear Acrylic Lens .08"
Light Source: (252) 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

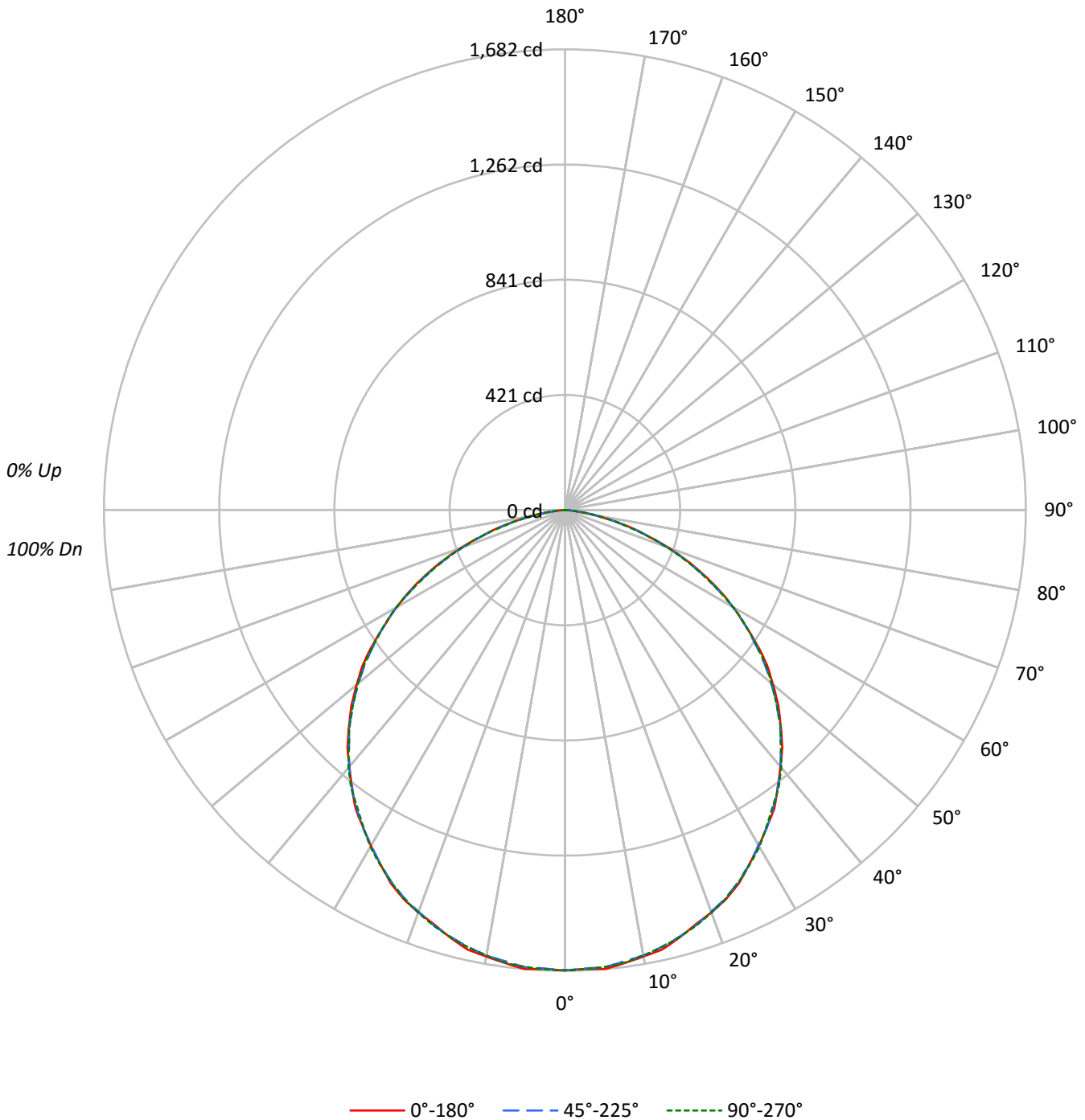
Lumens per Lamp: N/A
Luminaire Lumens: 4607.8 lumens
Efficiency: N/A
Efficacy: 111.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	2261	2261	2261
5°	2272	2262	2261
10°	2261	2255	2255
15°	2250	2247	2249
20°	2238	2234	2240
25°	2232	2224	2226
30°	2199	2195	2205
35°	2187	2178	2171
40°	2148	2148	2158
45°	2119	2111	2116
50°	2076	2056	2065
55°	2006	1984	1993
60°	1908	1908	1912
65°	1779	1762	1758
70°	1586	1554	1559
75°	1329	1287	1273
80°	912	912	923
85°	480	480	522



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.0	3.5
10°-20°	455.3	9.9
20°-30°	689.6	15.0
30°-40°	829.3	18.0
40°-50°	856.0	18.6
50°-60°	760.4	16.5
60°-70°	547.4	11.9
70°-80°	264.8	5.7
80°-90°	46.1	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°	1303.8	28.3
0°-40°	2133.1	46.3
0°-60°	3749.5	81.4
0°-90°	4607.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4607.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1680	1680	1680	1680	1680	
5°	1682	1678	1675	1670	1674	159
15°	1616	1614	1613	1609	1614	456
25°	1503	1496	1498	1498	1499	691
35°	1331	1327	1326	1327	1322	830
45°	1114	1112	1110	1110	1112	860
55°	855	854	846	850	850	763
65°	559	555	553	548	552	552
75°	256	250	248	246	245	269
85°	31	31	31	31	34	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1680.5	1680.5	1680.5	1680.5	1680.5
2.5°	1676.5	1676.5	1675.1	1676.5	1677.8
5°	1681.9	1677.8	1675.1	1669.7	1673.7
7.5°	1668.3	1664.3	1661.6	1657.5	1667.0
10°	1654.8	1654.8	1650.7	1644.0	1650.7
12.5°	1642.6	1634.5	1633.2	1631.8	1634.5
15°	1615.6	1614.2	1612.9	1608.8	1614.2
17.5°	1585.8	1589.9	1589.9	1589.9	1591.2
20°	1562.8	1560.1	1560.1	1560.1	1564.1
22.5°	1537.1	1531.7	1533.0	1527.6	1534.4
25°	1503.3	1496.5	1497.8	1497.8	1499.2
27.5°	1457.3	1457.3	1457.3	1458.6	1460.0
30°	1415.3	1418.0	1412.6	1411.3	1419.4
32.5°	1372.0	1372.0	1373.4	1368.0	1369.3
35°	1331.4	1327.4	1326.0	1327.4	1321.9
37.5°	1275.9	1278.7	1277.3	1275.9	1280.0
40°	1223.2	1227.2	1223.2	1221.8	1228.6
42.5°	1174.5	1170.4	1166.3	1163.6	1166.3
45°	1113.6	1112.2	1109.5	1109.5	1112.2
47.5°	1056.7	1054.0	1047.3	1045.9	1047.3
50°	991.8	989.1	982.3	987.7	986.4
52.5°	929.6	924.1	917.4	920.1	920.1
55°	855.1	853.8	845.7	849.7	849.7
57.5°	778.0	783.4	780.7	779.4	780.7
60°	709.0	713.1	709.0	704.9	710.4
62.5°	637.3	634.6	629.2	629.2	629.2
65°	558.8	554.8	553.4	548.0	552.1
67.5°	481.7	477.6	474.9	473.6	473.6
70°	403.2	400.5	395.1	393.7	396.4
72.5°	322.0	323.4	320.7	318.0	322.0
75°	255.7	250.3	247.6	246.3	244.9
77.5°	181.3	178.6	177.3	177.3	178.6
80°	117.7	117.7	117.7	117.7	119.1
82.5°	67.7	69.0	67.7	70.4	71.7
85°	31.1	31.1	31.1	31.1	33.8
87.5°	10.8	9.5	9.5	10.8	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)