

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: P302623

Luminaire Tested: **FSP-24-47-40-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: P302623  
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-24-47-40-CP187  
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .187"  
Light Source: (238) 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

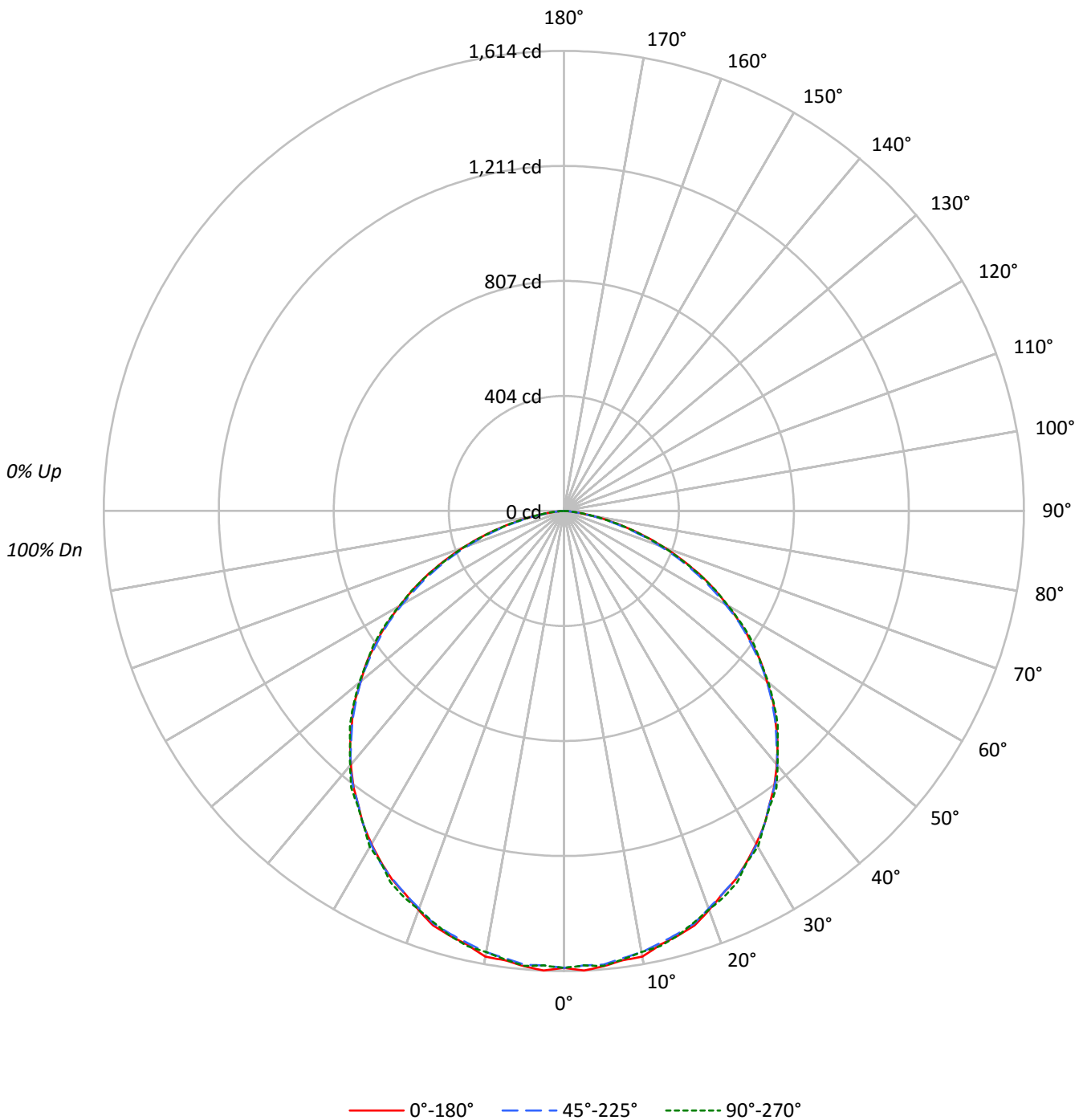
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4348.4 lumens  
Efficiency: N/A  
Efficacy: 105.0 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): 41.4  
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°	2157	2157	2157
5°	2165	2157	2163
10°	2169	2147	2147
15°	2149	2140	2149
20°	2133	2125	2131
25°	2118	2114	2134
30°	2096	2100	2115
35°	2065	2065	2072
40°	2041	2046	2048
45°	2000	1998	2019
50°	1946	1946	1961
55°	1880	1867	1906
60°	1785	1760	1793
65°	1669	1617	1656
70°	1477	1413	1477
75°	1214	1135	1199
80°	836	793	857
85°	400	380	400



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.6	3.5
10°-20°	434.4	10.0
20°-30°	657.0	15.1
30°-40°	789.2	18.1
40°-50°	810.7	18.6
50°-60°	715.2	16.4
60°-70°	509.1	11.7
70°-80°	242.2	5.6
80°-90°	39.0	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°	1243.0	28.6
0°-40°	2032.2	46.7
0°-60°	3558.1	81.8
0°-90°	4348.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4348.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1603	1603	1603	1603	1603	
5°	1603	1602	1597	1593	1602	152
15°	1543	1539	1536	1541	1543	436
25°	1427	1424	1424	1427	1438	656
35°	1257	1259	1257	1270	1262	788
45°	1051	1050	1050	1057	1061	811
55°	801	803	796	801	812	717
65°	524	520	508	512	520	516
75°	234	228	218	222	231	249
85°	26	25	25	26	26	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1602.9	1602.9	1602.9	1602.9	1602.9
2.5°	1613.8	1601.5	1596.0	1593.3	1596.0
5°	1602.9	1601.5	1597.4	1593.3	1601.5
7.5°	1589.2	1586.5	1582.4	1579.6	1586.5
10°	1587.8	1576.9	1571.5	1572.8	1571.5
12.5°	1559.2	1560.5	1553.7	1556.4	1563.3
15°	1542.8	1538.7	1536.0	1541.4	1542.8
17.5°	1525.0	1523.7	1518.2	1510.0	1514.1
20°	1489.5	1488.2	1484.1	1490.9	1488.2
22.5°	1454.0	1462.2	1454.0	1463.6	1466.3
25°	1426.7	1424.0	1424.0	1426.7	1437.7
27.5°	1388.5	1384.4	1392.6	1385.8	1389.9
30°	1348.9	1344.8	1351.6	1351.6	1361.2
32.5°	1308.0	1303.9	1308.0	1305.2	1306.6
35°	1257.4	1258.8	1257.4	1269.7	1261.5
37.5°	1213.7	1211.0	1215.1	1215.1	1224.7
40°	1161.9	1161.9	1164.6	1161.9	1166.0
42.5°	1110.0	1101.8	1104.5	1108.6	1110.0
45°	1051.3	1049.9	1049.9	1056.7	1060.8
47.5°	996.7	991.2	989.8	992.6	999.4
50°	929.8	929.8	929.8	933.9	936.6
52.5°	872.4	868.3	864.2	867.0	869.7
55°	801.4	802.8	796.0	801.4	812.4
57.5°	735.9	734.5	730.4	730.4	741.4
60°	663.5	663.5	654.0	660.8	666.3
62.5°	595.3	593.9	580.3	584.3	596.6
65°	524.3	520.2	507.9	512.0	520.2
67.5°	449.2	445.1	434.2	436.9	443.7
70°	375.5	372.7	359.1	363.2	375.5
72.5°	303.1	297.6	289.4	290.8	299.0
75°	233.5	228.0	218.4	222.5	230.7
77.5°	167.9	165.2	158.4	159.7	167.9
80°	107.9	106.5	102.4	105.1	110.6
82.5°	62.8	60.1	56.0	58.7	61.4
85°	25.9	24.6	24.6	25.9	25.9
87.5°	5.5	5.5	6.8	6.8	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)