

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: P302624

Luminaire Tested: **FSP-24-47-40-CP250**

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: P302624
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-18)
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-CP250
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .25"
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

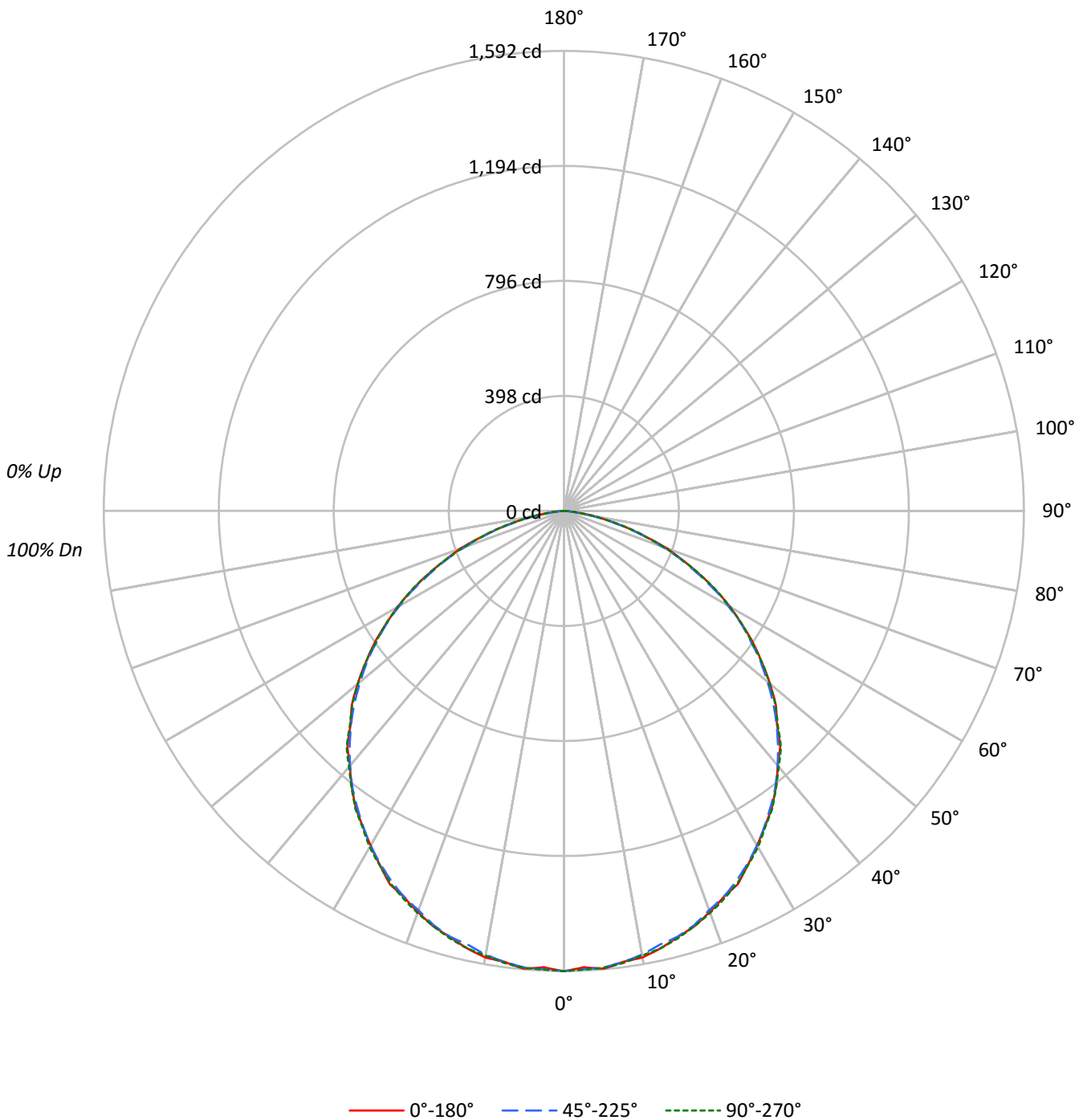
Lumens per Lamp: N/A
Luminaire Lumens: 4312.7 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.4
Input Voltage (V): NR
Input Current (A_{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	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	74	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	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	35	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°	2142	2142	2142
5°	2147	2142	2143
10°	2143	2130	2134
15°	2125	2124	2131
20°	2114	2105	2120
25°	2115	2098	2109
30°	2077	2077	2088
35°	2061	2050	2065
40°	2022	2022	2031
45°	1985	1980	1993
50°	1950	1925	1948
55°	1880	1858	1867
60°	1785	1767	1785
65°	1655	1621	1650
70°	1501	1427	1464
75°	1202	1154	1223
80°	845	793	855
85°	411	369	411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.6	3.5
10°-20°	430.8	10.0
20°-30°	652.0	15.1
30°-40°	782.4	18.1
40°-50°	805.5	18.7
50°-60°	709.4	16.4
60°-70°	504.5	11.7
70°-80°	239.3	5.5
80°-90°	38.1	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°	1233.5	28.6
0°-40°	2015.9	46.7
0°-60°	3530.8	81.9
0°-90°	4312.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4312.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1592	1592	1592	1592	1592	
5°	1590	1587	1586	1590	1587	151
15°	1526	1527	1524	1526	1530	431
25°	1425	1420	1413	1416	1421	653
35°	1255	1253	1248	1252	1257	783
45°	1043	1045	1041	1045	1047	809
55°	802	791	792	796	796	715
65°	520	496	509	512	518	514
75°	231	211	222	226	235	247
85°	27	23	24	25	27	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1592.3	1592.3	1592.3	1592.3	1592.3
2.5°	1580.3	1593.6	1587.0	1588.3	1588.3
5°	1589.6	1587.0	1585.6	1589.6	1587.0
7.5°	1573.7	1580.3	1573.7	1577.7	1577.7
10°	1568.4	1564.4	1559.1	1557.7	1561.7
12.5°	1549.8	1547.1	1536.5	1548.4	1549.8
15°	1525.8	1527.2	1524.5	1525.8	1529.8
17.5°	1505.9	1505.9	1501.9	1504.6	1505.9
20°	1476.7	1483.3	1470.0	1476.7	1480.6
22.5°	1446.1	1448.7	1444.8	1446.1	1451.4
25°	1424.8	1419.5	1412.9	1415.5	1420.8
27.5°	1379.6	1382.3	1375.6	1377.0	1381.0
30°	1337.1	1335.8	1337.1	1337.1	1343.7
32.5°	1294.6	1294.6	1293.2	1293.2	1297.2
35°	1254.7	1253.4	1248.0	1252.0	1257.3
37.5°	1205.5	1204.2	1202.9	1204.2	1206.8
40°	1151.0	1155.0	1151.0	1152.3	1156.3
42.5°	1108.5	1103.2	1096.5	1104.5	1112.5
45°	1043.4	1044.7	1040.7	1044.7	1047.3
47.5°	995.5	982.2	982.2	987.5	992.9
50°	931.7	922.4	919.8	926.4	930.4
52.5°	865.3	857.3	858.6	861.3	866.6
55°	801.5	790.8	792.2	796.1	796.1
57.5°	732.3	719.1	728.4	729.7	731.0
60°	663.2	647.3	656.6	657.9	663.2
62.5°	591.5	571.5	586.1	587.5	595.4
65°	519.7	495.8	509.1	511.7	518.4
67.5°	445.3	425.3	439.9	436.0	443.9
70°	381.5	352.2	362.8	365.5	372.2
72.5°	299.1	279.1	295.1	293.7	299.1
75°	231.3	211.3	222.0	226.0	235.3
77.5°	163.5	150.2	159.5	163.5	166.1
80°	109.0	98.4	102.3	106.3	110.3
82.5°	62.5	54.5	58.5	58.5	59.8
85°	26.6	22.6	23.9	25.3	26.6
87.5°	6.6	5.3	5.3	5.3	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)