

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: P302620

Luminaire Tested: **FSP-24-47-40-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: P302620
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-24-47-40-CA08
Description: 2x4 Fail Safe Flat Panel Clear Acrylic Lens .08"
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

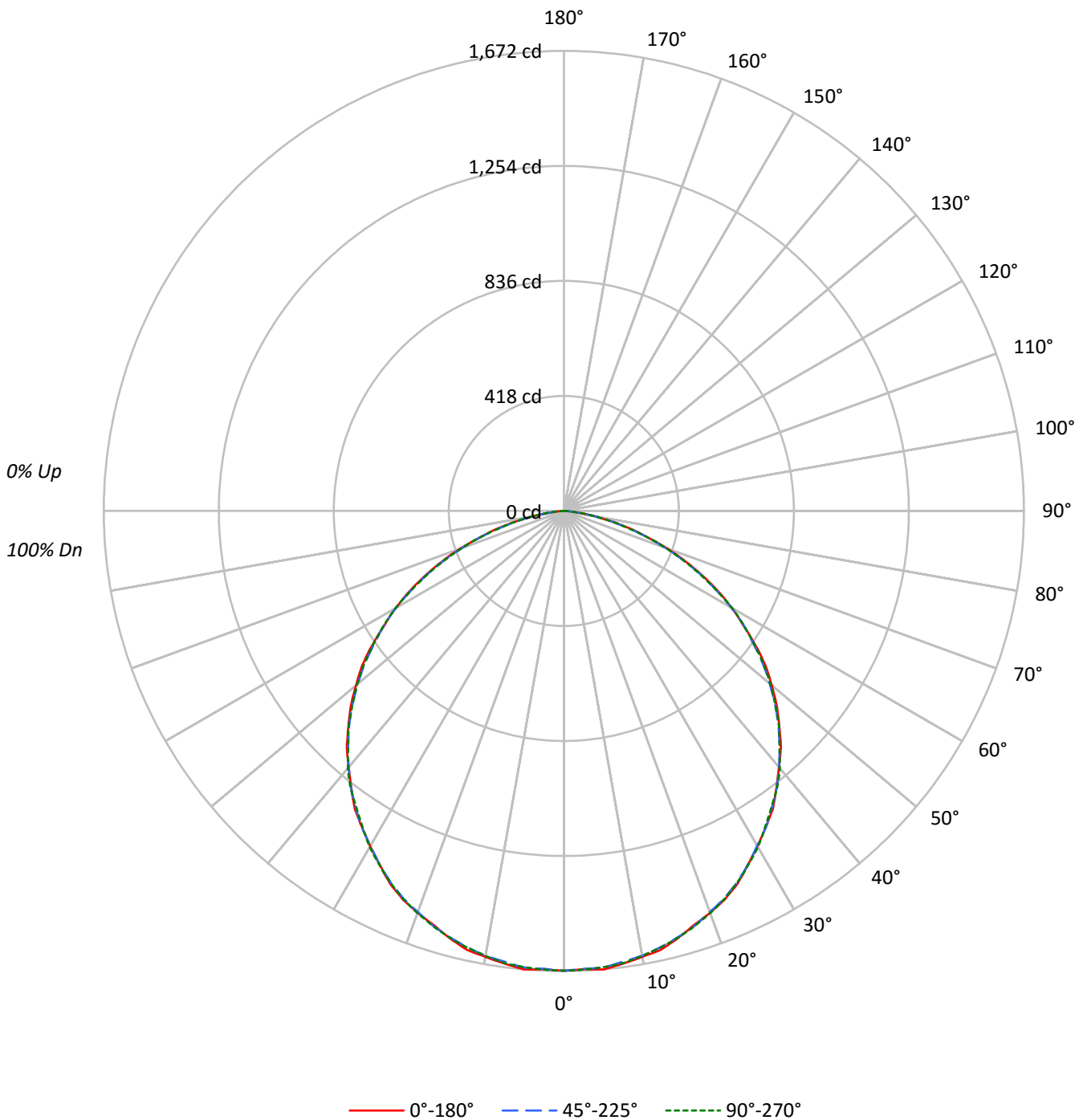
Lumens per Lamp: N/A
Luminaire Lumens: 4581.4 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	2248	2248	2248
5°	2259	2249	2248
10°	2248	2242	2242
15°	2238	2234	2236
20°	2225	2221	2227
25°	2219	2211	2213
30°	2186	2182	2192
35°	2174	2166	2159
40°	2136	2136	2145
45°	2107	2099	2104
50°	2064	2044	2053
55°	1994	1972	1982
60°	1897	1897	1901
65°	1769	1752	1748
70°	1577	1545	1551
75°	1322	1280	1266
80°	907	907	917
85°	477	477	519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.1	3.5
10°-20°	452.6	9.9
20°-30°	685.6	15.0
30°-40°	824.5	18.0
40°-50°	851.1	18.6
50°-60°	756.0	16.5
60°-70°	544.2	11.9
70°-80°	263.3	5.7
80°-90°	45.9	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°	1296.3	28.3
0°-40°	2120.8	46.3
0°-60°	3728.0	81.4
0°-90°	4581.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4581.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1671	1671	1671	1671	1671	
5°	1672	1668	1666	1660	1664	159
15°	1606	1605	1604	1600	1605	453
25°	1495	1488	1489	1489	1491	687
35°	1324	1320	1318	1320	1314	825
45°	1107	1106	1103	1103	1106	855
55°	850	849	841	845	845	759
65°	556	552	550	545	549	549
75°	254	249	246	245	244	267
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°	1670.9	1670.9	1670.9	1670.9	1670.9
2.5°	1666.8	1666.8	1665.5	1666.8	1668.2
5°	1672.2	1668.2	1665.5	1660.1	1664.2
7.5°	1658.8	1654.7	1652.0	1648.0	1657.4
10°	1645.3	1645.3	1641.3	1634.6	1641.3
12.5°	1633.2	1625.1	1623.8	1622.5	1625.1
15°	1606.3	1605.0	1603.6	1599.6	1605.0
17.5°	1576.7	1580.7	1580.7	1580.7	1582.1
20°	1553.8	1551.1	1551.1	1551.1	1555.2
22.5°	1528.3	1522.9	1524.2	1518.9	1525.6
25°	1494.6	1487.9	1489.3	1489.3	1490.6
27.5°	1448.9	1448.9	1448.9	1450.3	1451.6
30°	1407.2	1409.9	1404.5	1403.2	1411.2
32.5°	1364.2	1364.2	1365.5	1360.1	1361.5
35°	1323.8	1319.8	1318.4	1319.8	1314.4
37.5°	1268.6	1271.3	1270.0	1268.6	1272.7
40°	1216.2	1220.2	1216.2	1214.8	1221.5
42.5°	1167.7	1163.7	1159.7	1157.0	1159.7
45°	1107.2	1105.8	1103.2	1103.2	1105.8
47.5°	1050.7	1048.0	1041.3	1039.9	1041.3
50°	986.1	983.4	976.7	982.1	980.7
52.5°	924.2	918.9	912.1	914.8	914.8
55°	850.2	848.9	840.8	844.9	844.9
57.5°	773.6	778.9	776.2	774.9	776.2
60°	704.9	709.0	704.9	700.9	706.3
62.5°	633.6	631.0	625.6	625.6	625.6
65°	555.6	551.6	550.2	544.9	548.9
67.5°	478.9	474.9	472.2	470.9	470.9
70°	400.9	398.2	392.8	391.5	394.2
72.5°	320.2	321.5	318.8	316.1	320.2
75°	254.3	248.9	246.2	244.8	243.5
77.5°	180.3	177.6	176.2	176.2	177.6
80°	117.0	117.0	117.0	117.0	118.4
82.5°	67.3	68.6	67.3	70.0	71.3
85°	30.9	30.9	30.9	30.9	33.6
87.5°	10.8	9.4	9.4	10.8	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)