

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: P302584

Luminaire Tested: **FSP-24-31-30-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: P302584
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-24-31-30-CA08
Description: 2x4 Fail Safe Flat Panel Clear Acrylic Lens .08"
Light Source: (266) 3000 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

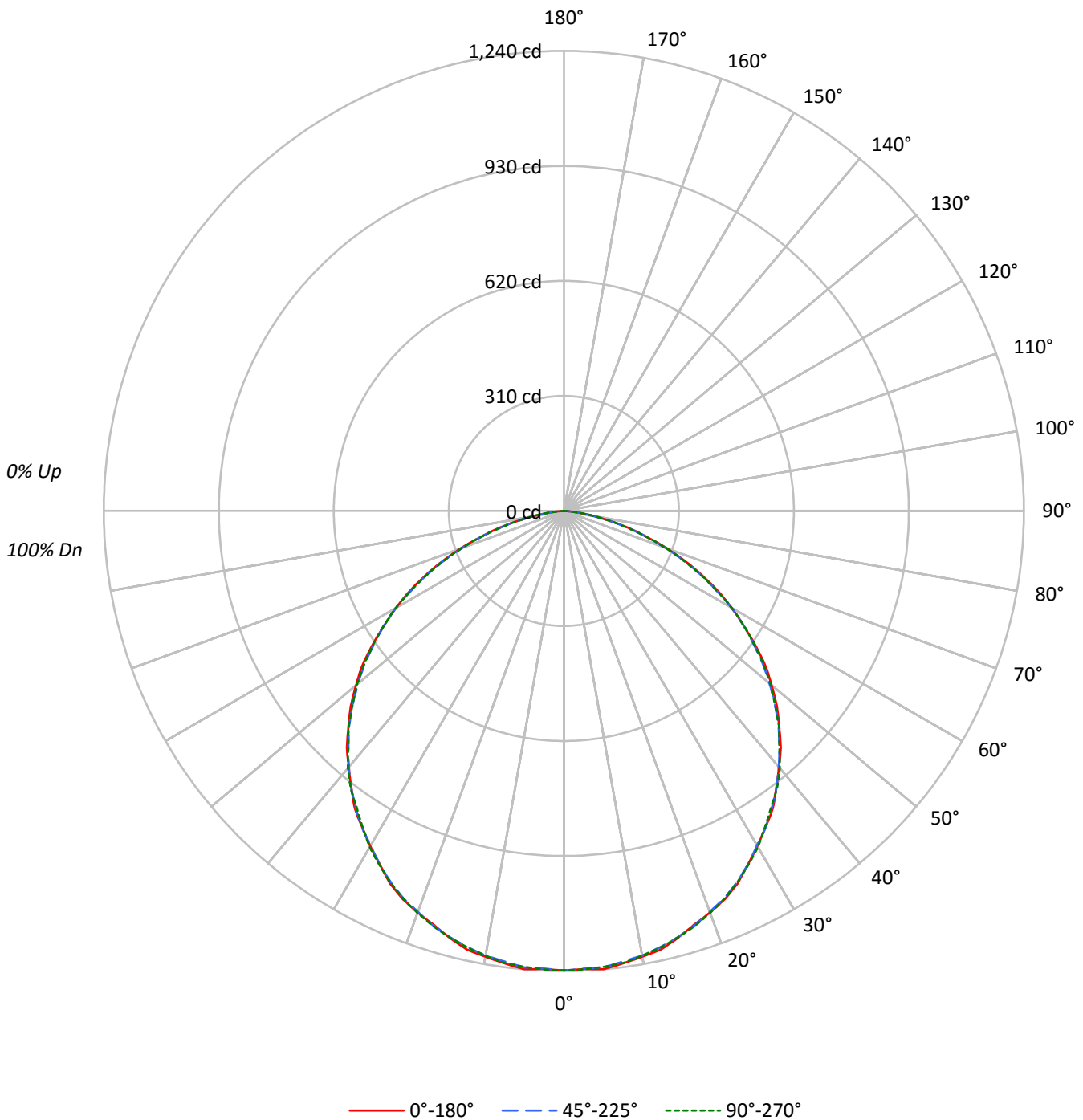
Lumens per Lamp: N/A
Luminaire Lumens: 3396.2 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 28.6
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°	1667	1667	1667
5°	1674	1667	1666
10°	1666	1662	1662
15°	1659	1656	1657
20°	1649	1646	1651
25°	1645	1639	1640
30°	1621	1618	1625
35°	1612	1605	1600
40°	1583	1583	1590
45°	1562	1556	1560
50°	1530	1515	1522
55°	1479	1462	1469
60°	1406	1406	1409
65°	1311	1299	1295
70°	1169	1146	1149
75°	980	949	938
80°	673	673	680
85°	354	354	384



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.2	3.5
10°-20°	335.6	9.9
20°-30°	508.2	15.0
30°-40°	611.2	18.0
40°-50°	631.0	18.6
50°-60°	560.4	16.5
60°-70°	403.4	11.9
70°-80°	195.2	5.7
80°-90°	34.0	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°	961.0	28.3
0°-40°	1572.2	46.3
0°-60°	2763.6	81.4
0°-90°	3396.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3396.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1239	1239	1239	1239	1239	
5°	1240	1237	1235	1231	1234	118
15°	1191	1190	1189	1186	1190	336
25°	1108	1103	1104	1104	1105	509
35°	981	978	977	978	974	612
45°	821	820	818	818	820	634
55°	630	629	623	626	626	562
65°	412	409	408	404	407	407
75°	188	184	182	182	180	198
85°	23	23	23	23	25	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1238.6	1238.6	1238.6	1238.6	1238.6
2.5°	1235.6	1235.6	1234.6	1235.6	1236.6
5°	1239.6	1236.6	1234.6	1230.7	1233.6
7.5°	1229.7	1226.7	1224.7	1221.7	1228.7
10°	1219.7	1219.7	1216.7	1211.7	1216.7
12.5°	1210.7	1204.7	1203.7	1202.7	1204.7
15°	1190.8	1189.8	1188.8	1185.8	1189.8
17.5°	1168.8	1171.8	1171.8	1171.8	1172.8
20°	1151.9	1149.9	1149.9	1149.9	1152.9
22.5°	1132.9	1128.9	1129.9	1125.9	1130.9
25°	1108.0	1103.0	1104.0	1104.0	1105.0
27.5°	1074.1	1074.1	1074.1	1075.1	1076.1
30°	1043.2	1045.2	1041.2	1040.2	1046.2
32.5°	1011.2	1011.2	1012.2	1008.3	1009.3
35°	981.3	978.3	977.3	978.3	974.3
37.5°	940.4	942.4	941.4	940.4	943.4
40°	901.5	904.5	901.5	900.5	905.5
42.5°	865.6	862.7	859.7	857.7	859.7
45°	820.8	819.8	817.8	817.8	819.8
47.5°	778.9	776.9	771.9	770.9	771.9
50°	731.0	729.0	724.0	728.0	727.0
52.5°	685.1	681.1	676.2	678.2	678.2
55°	630.3	629.3	623.3	626.3	626.3
57.5°	573.4	577.4	575.4	574.4	575.4
60°	522.6	525.6	522.6	519.6	523.6
62.5°	469.7	467.7	463.7	463.7	463.7
65°	411.9	408.9	407.9	403.9	406.9
67.5°	355.0	352.0	350.0	349.0	349.0
70°	297.2	295.2	291.2	290.2	292.2
72.5°	237.4	238.4	236.4	234.4	237.4
75°	188.5	184.5	182.5	181.5	180.5
77.5°	133.6	131.6	130.6	130.6	131.6
80°	86.8	86.8	86.8	86.8	87.8
82.5°	49.9	50.9	49.9	51.9	52.9
85°	22.9	22.9	22.9	22.9	24.9
87.5°	8.0	7.0	7.0	8.0	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)