

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: P302589

Luminaire Tested: **FSP-24-31-30-CP375**

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: P302589
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-21)
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-CP375
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .375"
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

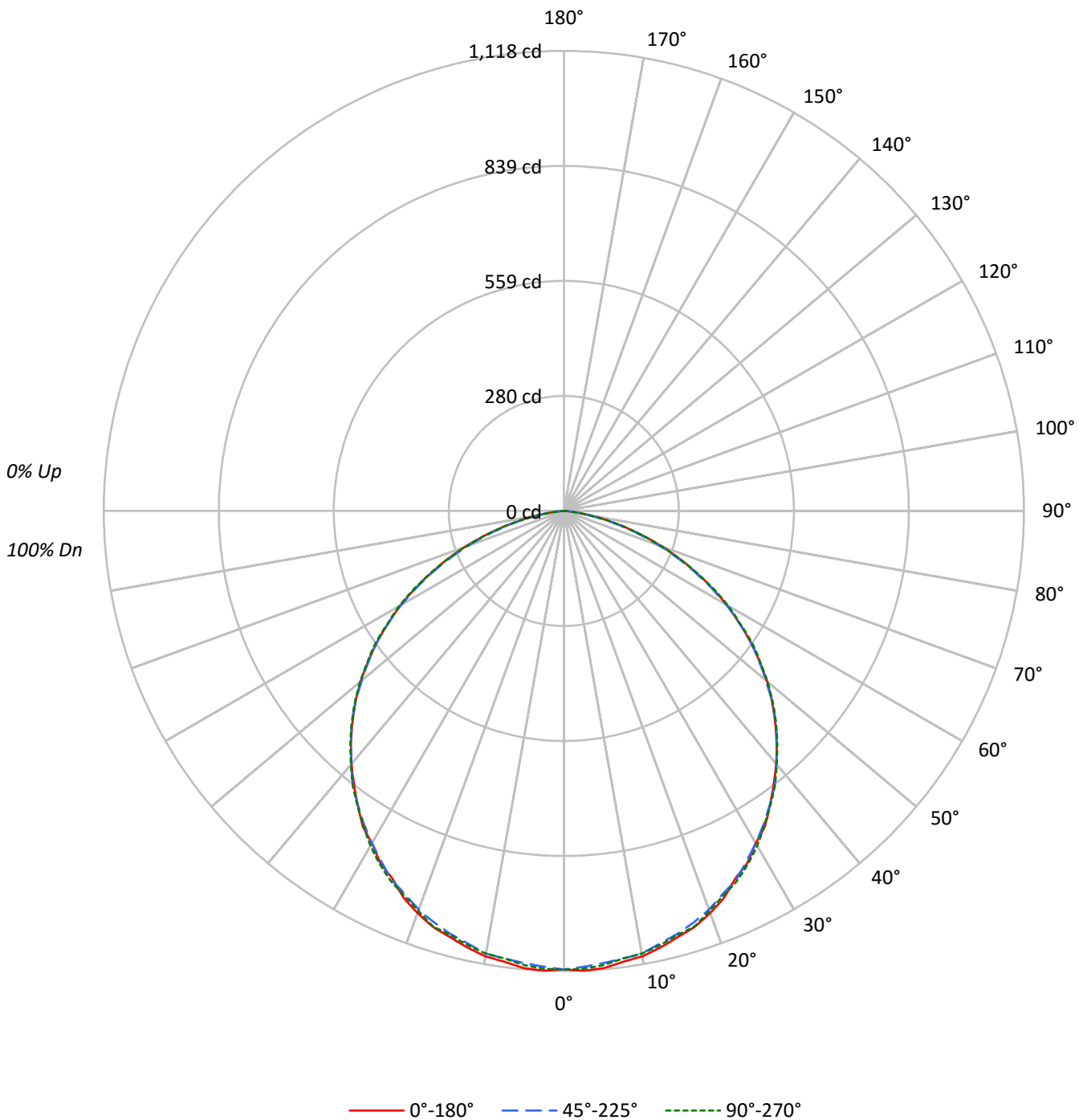
Lumens per Lamp: N/A
Luminaire Lumens: 2997.9 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	63	57	81	70	62	56	68	61	55	66	60	55	64	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1499	1499	1499
5°	1506	1489	1496
10°	1501	1492	1492
15°	1493	1482	1486
20°	1489	1476	1481
25°	1463	1469	1475
30°	1448	1448	1461
35°	1434	1433	1436
40°	1410	1411	1413
45°	1382	1387	1387
50°	1350	1342	1352
55°	1297	1299	1310
60°	1232	1227	1243
65°	1131	1119	1137
70°	1006	975	1002
75°	815	780	810
80°	563	525	563
85°	255	224	239



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.3	3.5
10°-20°	301.4	10.1
20°-30°	455.2	15.2
30°-40°	545.7	18.2
40°-50°	560.2	18.7
50°-60°	492.7	16.4
60°-70°	348.5	11.6
70°-80°	163.6	5.5
80°-90°	25.2	0.8
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°	861.9	28.8
0°-40°	1407.6	47.0
0°-60°	2460.5	82.1
0°-90°	2997.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2997.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1114	1114	1114	1114	1114	
5°	1115	1112	1103	1108	1108	106
15°	1072	1069	1064	1065	1067	303
25°	986	986	989	986	993	456
35°	873	870	872	873	874	546
45°	726	724	729	730	729	560
55°	553	553	554	551	559	494
65°	355	350	351	350	357	352
75°	157	152	150	152	156	168
85°	16	16	14	16	16	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1114.3	1114.3	1114.3	1114.3	1114.3
2.5°	1118.2	1116.3	1108.5	1110.5	1113.4
5°	1115.3	1112.4	1102.7	1107.5	1107.5
7.5°	1104.6	1101.7	1096.9	1099.8	1096.9
10°	1098.8	1097.9	1092.1	1091.1	1092.1
12.5°	1086.3	1083.3	1076.6	1081.4	1080.4
15°	1071.7	1068.8	1064.0	1065.0	1066.9
17.5°	1059.1	1057.2	1048.5	1051.4	1058.2
20°	1039.8	1033.0	1031.1	1032.0	1034.0
22.5°	1017.5	1012.7	1007.8	1009.8	1011.7
25°	985.6	985.6	989.4	986.5	993.3
27.5°	965.2	963.3	960.4	960.4	968.1
30°	932.3	932.3	932.3	935.2	940.1
32.5°	909.1	905.2	903.3	904.2	906.2
35°	873.3	870.4	872.3	873.3	874.2
37.5°	837.4	836.5	841.3	838.4	842.3
40°	802.6	800.6	803.6	801.6	804.5
42.5°	765.8	761.9	764.8	766.8	767.7
45°	726.1	724.2	729.0	730.0	729.0
47.5°	686.4	683.5	686.4	689.3	689.3
50°	644.8	640.9	640.9	643.8	645.7
52.5°	599.3	595.4	597.3	600.2	601.2
55°	552.8	552.8	553.8	550.9	558.6
57.5°	504.4	500.5	504.4	502.5	506.3
60°	457.9	455.0	456.0	452.1	461.8
62.5°	406.6	403.7	402.7	401.8	410.5
65°	355.3	350.5	351.4	349.5	357.2
67.5°	305.9	301.1	299.2	299.2	305.0
70°	255.6	247.8	247.8	245.9	254.6
72.5°	205.2	199.4	196.5	198.5	205.2
75°	156.8	152.0	150.1	152.0	155.9
77.5°	111.3	109.4	106.5	108.4	112.3
80°	72.6	70.7	67.8	70.7	72.6
82.5°	39.7	38.7	36.8	38.7	38.7
85°	16.5	16.5	14.5	15.5	15.5
87.5°	4.8	3.9	3.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)