

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: P302601

Luminaire Tested: **FSP-24-31-40-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: P302601
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-24-31-40-CP375
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .375"
Light Source: (266) 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

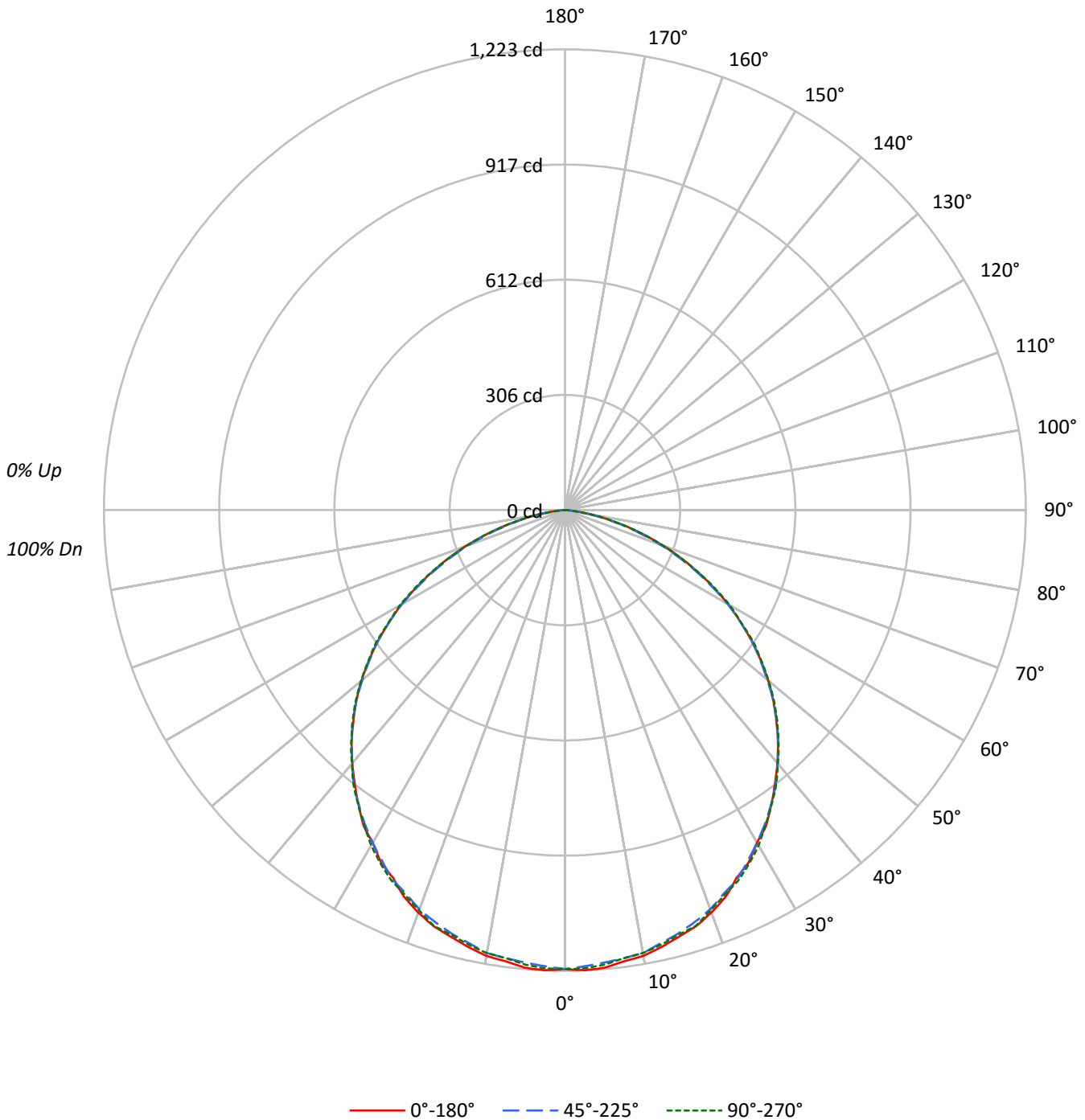
Lumens per Lamp: N/A
Luminaire Lumens: 3278.0 lumens
Efficiency: N/A
Efficacy: 111.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 29.4
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	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°	1639	1639	1639
5°	1647	1628	1636
10°	1642	1631	1631
15°	1632	1621	1625
20°	1628	1614	1619
25°	1600	1606	1612
30°	1584	1584	1597
35°	1568	1567	1570
40°	1541	1543	1545
45°	1511	1517	1517
50°	1476	1467	1478
55°	1418	1420	1433
60°	1347	1342	1359
65°	1237	1223	1244
70°	1100	1066	1095
75°	892	853	886
80°	615	574	615
85°	278	245	261



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.1	3.5
10°-20°	329.6	10.1
20°-30°	497.7	15.2
30°-40°	596.6	18.2
40°-50°	612.5	18.7
50°-60°	538.8	16.4
60°-70°	381.1	11.6
70°-80°	178.9	5.5
80°-90°	27.6	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°	942.4	28.8
0°-40°	1539.1	47.0
0°-60°	2690.4	82.1
0°-90°	3278.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3278.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1218	1218	1218	1218	1218	
5°	1220	1216	1206	1211	1211	116
15°	1172	1169	1163	1164	1167	331
25°	1078	1078	1082	1079	1086	499
35°	955	952	954	955	956	597
45°	794	792	797	798	797	613
55°	604	604	606	602	611	540
65°	388	383	384	382	391	385
75°	172	166	164	166	170	184
85°	18	18	16	17	17	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1218.4	1218.4	1218.4	1218.4	1218.4
2.5°	1222.7	1220.6	1212.1	1214.2	1217.4
5°	1219.5	1216.3	1205.7	1211.0	1211.0
7.5°	1207.9	1204.7	1199.4	1202.6	1199.4
10°	1201.5	1200.4	1194.1	1193.0	1194.1
12.5°	1187.7	1184.6	1177.2	1182.4	1181.4
15°	1171.9	1168.7	1163.4	1164.4	1166.6
17.5°	1158.1	1156.0	1146.5	1149.6	1157.0
20°	1136.9	1129.5	1127.4	1128.5	1130.6
22.5°	1112.6	1107.3	1102.0	1104.1	1106.2
25°	1077.6	1077.6	1081.9	1078.7	1086.1
27.5°	1055.4	1053.3	1050.1	1050.1	1058.6
30°	1019.4	1019.4	1019.4	1022.6	1027.9
32.5°	994.0	989.8	987.7	988.7	990.8
35°	954.8	951.7	953.8	954.8	955.9
37.5°	915.7	914.6	919.9	916.7	921.0
40°	877.6	875.5	878.6	876.5	879.7
42.5°	837.3	833.1	836.3	838.4	839.5
45°	793.9	791.8	797.1	798.2	797.1
47.5°	750.5	747.4	750.5	753.7	753.7
50°	705.0	700.8	700.8	704.0	706.1
52.5°	655.3	651.0	653.1	656.3	657.4
55°	604.5	604.5	605.5	602.3	610.8
57.5°	551.5	547.3	551.5	549.4	553.6
60°	500.7	497.5	498.6	494.4	504.9
62.5°	444.6	441.4	440.4	439.3	448.8
65°	388.5	383.2	384.3	382.2	390.6
67.5°	334.5	329.2	327.1	327.1	333.5
70°	279.5	271.0	271.0	268.9	278.4
72.5°	224.4	218.1	214.9	217.0	224.4
75°	171.5	166.2	164.1	166.2	170.4
77.5°	121.7	119.6	116.4	118.6	122.8
80°	79.4	77.3	74.1	77.3	79.4
82.5°	43.4	42.3	40.2	42.3	42.3
85°	18.0	18.0	15.9	16.9	16.9
87.5°	5.3	4.2	4.2	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)