

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: P302631

Luminaire Tested: **FSP-24-47-50-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: P302631
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-24-47-50-CP375
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .375"
Light Source: (238) 5000 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

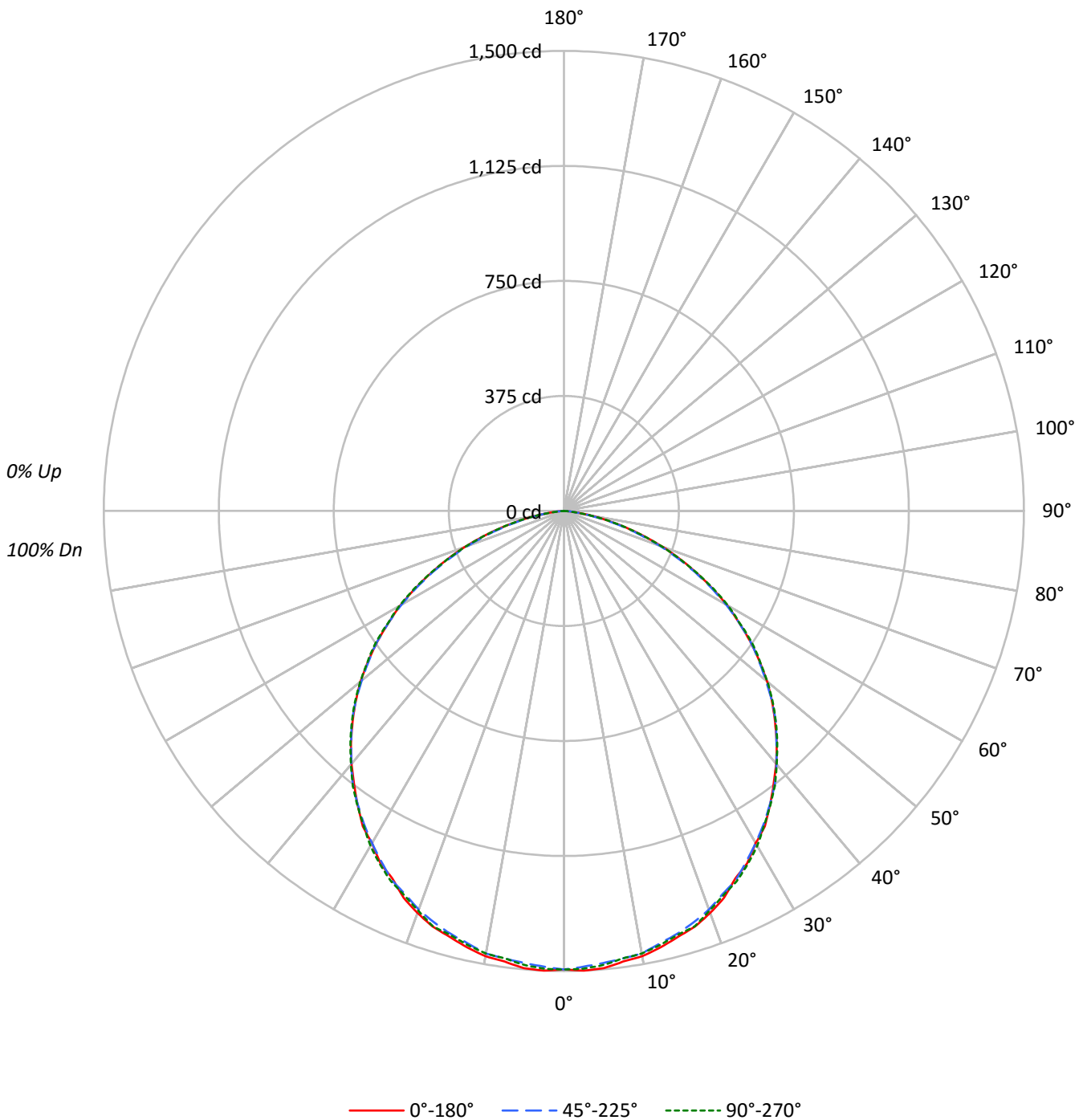
Lumens per Lamp: N/A
Luminaire Lumens: 4021.7 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	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°	2011	2011	2011
5°	2021	1998	2007
10°	2014	2002	2002
15°	2003	1988	1994
20°	1997	1981	1986
25°	1963	1970	1978
30°	1943	1943	1959
35°	1924	1922	1926
40°	1891	1893	1896
45°	1854	1861	1861
50°	1811	1800	1813
55°	1740	1743	1758
60°	1653	1646	1667
65°	1517	1501	1526
70°	1349	1308	1344
75°	1094	1046	1087
80°	755	704	755
85°	341	301	321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.2	3.5
10°-20°	404.4	10.1
20°-30°	610.7	15.2
30°-40°	732.0	18.2
40°-50°	751.5	18.7
50°-60°	661.0	16.4
60°-70°	467.6	11.6
70°-80°	219.5	5.5
80°-90°	33.8	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°	1156.3	28.8
0°-40°	1888.3	47.0
0°-60°	3300.8	82.1
0°-90°	4021.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4021.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1495	1495	1495	1495	1495	
5°	1496	1492	1479	1486	1486	142
15°	1438	1434	1427	1429	1431	406
25°	1322	1322	1327	1323	1332	612
35°	1172	1168	1170	1172	1173	732
45°	974	972	978	979	978	751
55°	742	742	743	739	749	662
65°	477	470	471	469	479	473
75°	210	204	201	204	209	225
85°	22	22	20	21	21	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1494.9	1494.9	1494.9	1494.9	1494.9
2.5°	1500.1	1497.5	1487.1	1489.7	1493.6
5°	1496.2	1492.3	1479.3	1485.8	1485.8
7.5°	1481.9	1478.0	1471.5	1475.4	1471.5
10°	1474.1	1472.8	1465.0	1463.7	1465.0
12.5°	1457.2	1453.3	1444.2	1450.7	1449.4
15°	1437.7	1433.8	1427.3	1428.6	1431.2
17.5°	1420.8	1418.2	1406.5	1410.4	1419.5
20°	1394.9	1385.8	1383.2	1384.5	1387.1
22.5°	1365.0	1358.5	1352.0	1354.6	1357.2
25°	1322.1	1322.1	1327.3	1323.4	1332.5
27.5°	1294.9	1292.3	1288.4	1288.4	1298.7
30°	1250.7	1250.7	1250.7	1254.6	1261.1
32.5°	1219.5	1214.3	1211.7	1213.0	1215.6
35°	1171.5	1167.6	1170.2	1171.5	1172.8
37.5°	1123.4	1122.1	1128.6	1124.7	1129.9
40°	1076.7	1074.1	1078.0	1075.4	1079.3
42.5°	1027.3	1022.1	1026.0	1028.6	1029.9
45°	974.1	971.5	978.0	979.3	978.0
47.5°	920.8	916.9	920.8	924.7	924.7
50°	865.0	859.8	859.8	863.7	866.3
52.5°	803.9	798.7	801.3	805.2	806.5
55°	741.6	741.6	742.9	739.0	749.4
57.5°	676.6	671.5	676.6	674.1	679.2
60°	614.3	610.4	611.7	606.5	619.5
62.5°	545.5	541.6	540.3	539.0	550.7
65°	476.6	470.1	471.4	468.8	479.2
67.5°	410.4	403.9	401.3	401.3	409.1
70°	342.9	332.5	332.5	329.9	341.6
72.5°	275.3	267.5	263.6	266.2	275.3
75°	210.4	203.9	201.3	203.9	209.1
77.5°	149.4	146.8	142.9	145.5	150.7
80°	97.4	94.8	90.9	94.8	97.4
82.5°	53.2	51.9	49.4	51.9	51.9
85°	22.1	22.1	19.5	20.8	20.8
87.5°	6.5	5.2	5.2	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)