

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: P302523

Luminaire Tested: **FSP-22-21-30-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: P302523
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FSP-22-21-30-CP375
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .375"
Light Source: (126) 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

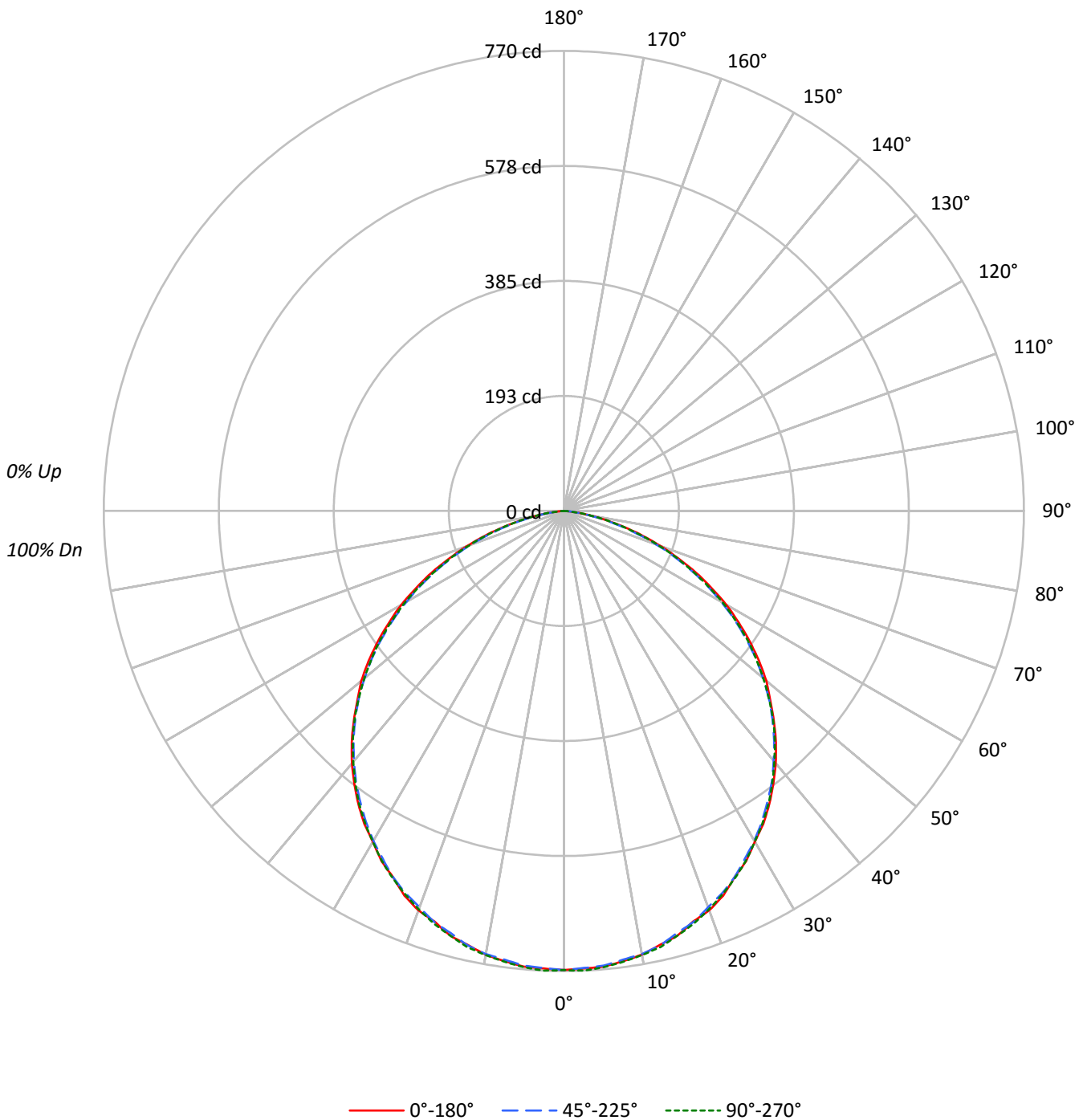
Lumens per Lamp: N/A
Luminaire Lumens: 2039.7 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 20.7
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	99	96	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	82	77	83	79	75	80	77	74	72
3	91	81	73	67	89	79	72	66	77	70	65	74	68	64	71	67	63	61
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52
5	77	64	56	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	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2067	2067	2067
5°	2068	2063	2071
10°	2060	2057	2062
15°	2050	2037	2050
20°	2037	2022	2032
25°	2008	2008	2013
30°	1986	1981	1986
35°	1969	1951	1963
40°	1938	1919	1925
45°	1893	1879	1886
50°	1852	1822	1825
55°	1779	1745	1758
60°	1691	1637	1657
65°	1552	1494	1506
70°	1364	1307	1328
75°	1098	1032	1070
80°	741	699	741
85°	333	306	333



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.6	3.6
10°-20°	207.1	10.2
20°-30°	311.7	15.3
30°-40°	372.8	18.3
40°-50°	381.3	18.7
50°-60°	333.4	16.3
60°-70°	234.5	11.5
70°-80°	109.3	5.4
80°-90°	17.0	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°	591.4	29.0
0°-40°	964.1	47.3
0°-60°	1678.9	82.3
0°-90°	2039.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2039.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	766	763	764	762	766	73
15°	736	735	731	733	736	207
25°	676	677	676	675	678	313
35°	599	598	594	594	598	375
45°	497	496	494	494	496	384
55°	379	376	372	370	375	339
65°	244	239	235	234	236	240
75°	106	103	99	100	103	113
85°	11	10	10	11	11	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	768.3	768.3	768.3	768.3	768.3
2.5°	766.5	768.3	765.6	764.7	770.1
5°	765.6	762.8	763.8	761.9	766.5
7.5°	760.1	760.1	757.4	758.3	761.0
10°	753.8	752.0	752.9	752.9	754.7
12.5°	743.9	745.7	744.8	744.8	747.5
15°	735.8	734.9	731.3	733.1	735.8
17.5°	720.4	723.1	721.3	721.3	724.0
20°	711.4	709.6	706.0	707.8	709.6
22.5°	696.9	695.1	692.4	693.3	694.2
25°	676.2	677.1	676.2	675.3	678.0
27.5°	660.8	658.1	656.3	656.3	659.9
30°	639.2	641.0	637.4	637.4	639.2
32.5°	621.1	620.2	616.6	617.5	619.3
35°	599.4	598.5	594.0	594.0	597.6
37.5°	576.0	574.2	571.5	569.7	573.3
40°	551.6	551.6	546.2	544.4	548.0
42.5°	525.4	521.8	520.9	521.8	522.7
45°	497.4	495.6	493.8	493.8	495.6
47.5°	468.5	467.6	465.8	464.0	465.8
50°	442.4	436.9	435.1	435.1	436.0
52.5°	411.7	406.3	404.4	402.6	405.3
55°	379.2	375.6	371.9	370.1	374.7
57.5°	346.7	342.2	338.5	339.4	340.3
60°	314.2	307.8	304.2	303.3	307.8
62.5°	278.1	274.4	269.9	269.9	271.7
65°	243.8	239.2	234.7	233.8	236.5
67.5°	206.7	204.9	200.4	198.6	204.0
70°	173.3	167.9	166.1	164.3	168.8
72.5°	139.0	133.6	131.8	132.7	136.3
75°	105.6	102.9	99.3	100.2	102.9
77.5°	74.9	73.1	70.4	72.2	74.9
80°	47.8	46.9	45.1	46.0	47.8
82.5°	28.0	27.1	25.3	26.2	26.2
85°	10.8	9.9	9.9	10.8	10.8
87.5°	2.7	2.7	2.7	1.8	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)