

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: P302528

Luminaire Tested: **FSP-22-21-35-CP250**

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: P302528
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-12)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FSP-22-21-35-CP250
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .25"
Light Source: (126) 3500 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

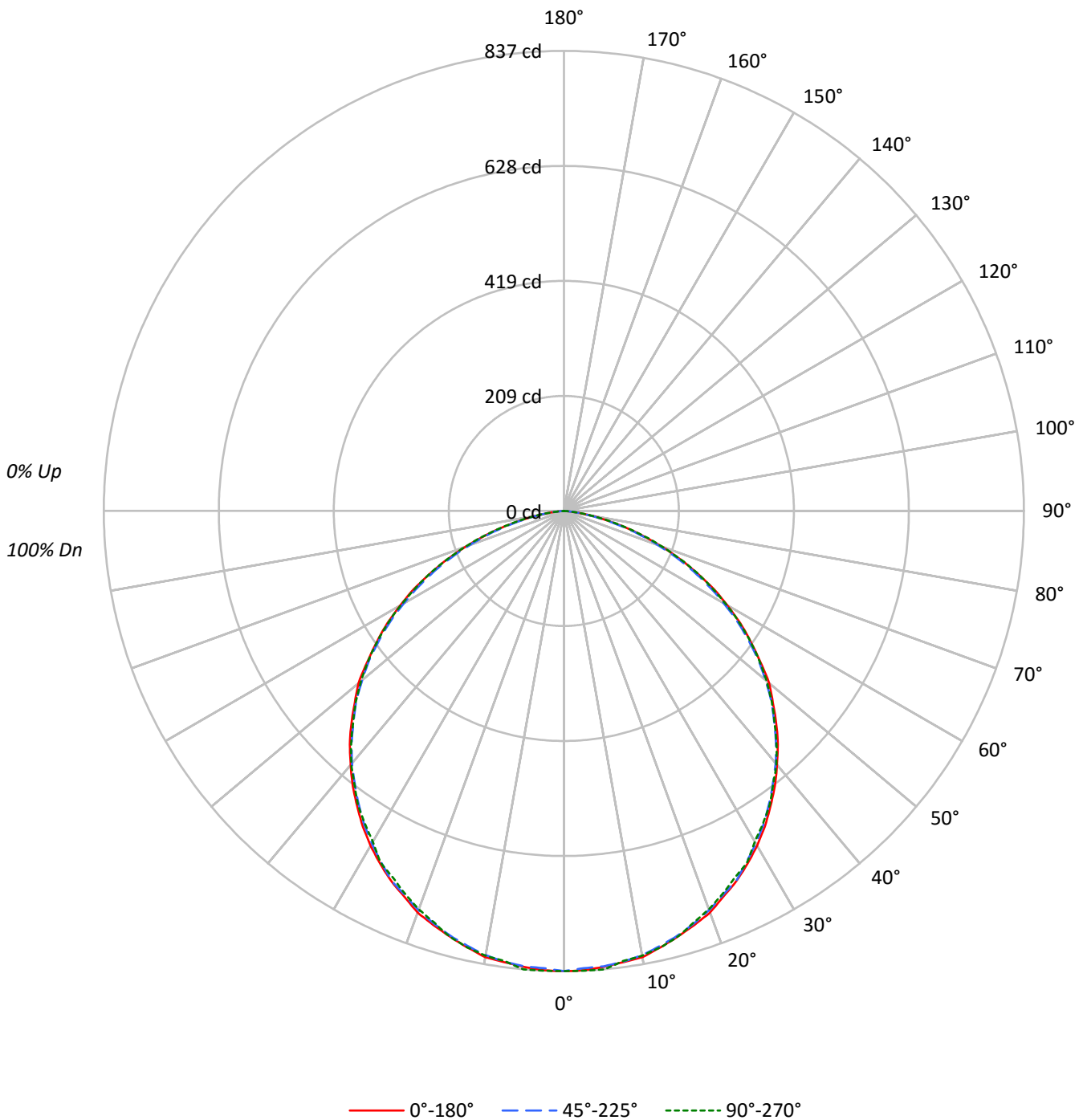
Lumens per Lamp: N/A
Luminaire Lumens: 2243.5 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.35
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P302528
CATALOG NUMBER: FSP-22-21-35-CP250

Luminous Intensity Polar Plot





TEST NUMBER: P302528

CATALOG NUMBER: FSP-22-21-35-CP250

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	71	62	56	68	61	56	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	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2253	2253	2253
5°	2249	2246	2261
10°	2252	2242	2244
15°	2234	2228	2234
20°	2227	2213	2208
25°	2206	2204	2184
30°	2185	2170	2159
35°	2154	2138	2144
40°	2120	2107	2113
45°	2080	2059	2063
50°	2043	2004	2016
55°	1948	1923	1944
60°	1849	1809	1840
65°	1702	1661	1708
70°	1495	1444	1502
75°	1210	1143	1230
80°	823	779	851
85°	374	346	374



TEST NUMBER: P302528

CATALOG NUMBER: FSP-22-21-35-CP250

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	3.5
10°-20°	226.0	10.1
20°-30°	340.9	15.2
30°-40°	408.4	18.2
40°-50°	419.1	18.7
50°-60°	368.5	16.4
60°-70°	260.5	11.6
70°-80°	121.9	5.4
80°-90°	19.1	0.9
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°	646.0	28.8
0°-40°	1054.3	47.0
0°-60°	1841.9	82.1
0°-90°	2243.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2243.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	837	837	837	837	837	
5°	832	834	832	832	837	79
15°	802	802	800	799	802	226
25°	743	741	742	738	736	342
35°	656	656	651	651	653	410
45°	547	545	541	542	542	422
55°	415	412	410	414	414	372
65°	267	264	261	264	268	265
75°	116	112	110	116	118	124
85°	12	12	11	13	12	19
90°	0	0	0	0	0	



TEST NUMBER: P302528

CATALOG NUMBER: FSP-22-21-35-CP250

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	837.2	837.2	837.2	837.2	837.2
2.5°	836.3	835.3	832.5	835.3	837.2
5°	832.5	833.5	831.6	832.5	837.2
7.5°	827.9	828.8	827.0	827.0	826.0
10°	824.2	824.2	820.4	820.4	821.4
12.5°	813.0	814.8	810.2	812.1	813.0
15°	801.8	801.8	799.9	799.0	801.8
17.5°	789.7	789.7	786.9	786.9	785.0
20°	777.6	775.7	772.9	770.1	771.1
22.5°	759.0	759.9	756.2	756.2	754.3
25°	743.1	741.3	742.2	737.6	735.7
27.5°	723.6	722.7	719.9	719.9	721.7
30°	703.1	700.3	698.4	696.6	694.7
32.5°	680.7	678.9	676.1	675.2	674.2
35°	655.6	655.6	650.9	650.9	652.8
37.5°	630.5	632.3	624.9	625.8	625.8
40°	603.5	604.4	599.7	600.7	601.6
42.5°	576.4	574.6	570.9	573.7	572.7
45°	546.6	544.8	541.1	542.0	542.0
47.5°	515.9	514.1	512.2	512.2	513.1
50°	488.0	482.4	478.7	479.6	481.5
52.5°	450.7	449.8	446.1	447.0	448.9
55°	415.3	412.5	409.8	413.5	414.4
57.5°	380.9	378.1	374.4	376.2	379.0
60°	343.6	339.0	336.2	339.0	341.8
62.5°	307.3	300.8	298.0	301.7	304.5
65°	267.3	263.5	260.8	264.5	268.2
67.5°	229.1	222.6	221.6	227.2	230.0
70°	190.0	183.5	183.5	188.1	190.9
72.5°	151.8	145.3	146.2	151.8	154.6
75°	116.4	111.8	109.9	115.5	118.3
77.5°	82.9	78.2	78.2	83.8	83.8
80°	53.1	50.3	50.3	54.0	54.9
82.5°	29.8	28.9	27.9	29.8	30.7
85°	12.1	12.1	11.2	13.0	12.1
87.5°	2.8	2.8	2.8	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)