

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: P302559

Luminaire Tested: **FSP-22-32-40-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: P302559
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-22-32-40-CP375
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .375"
Light Source: (168) 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

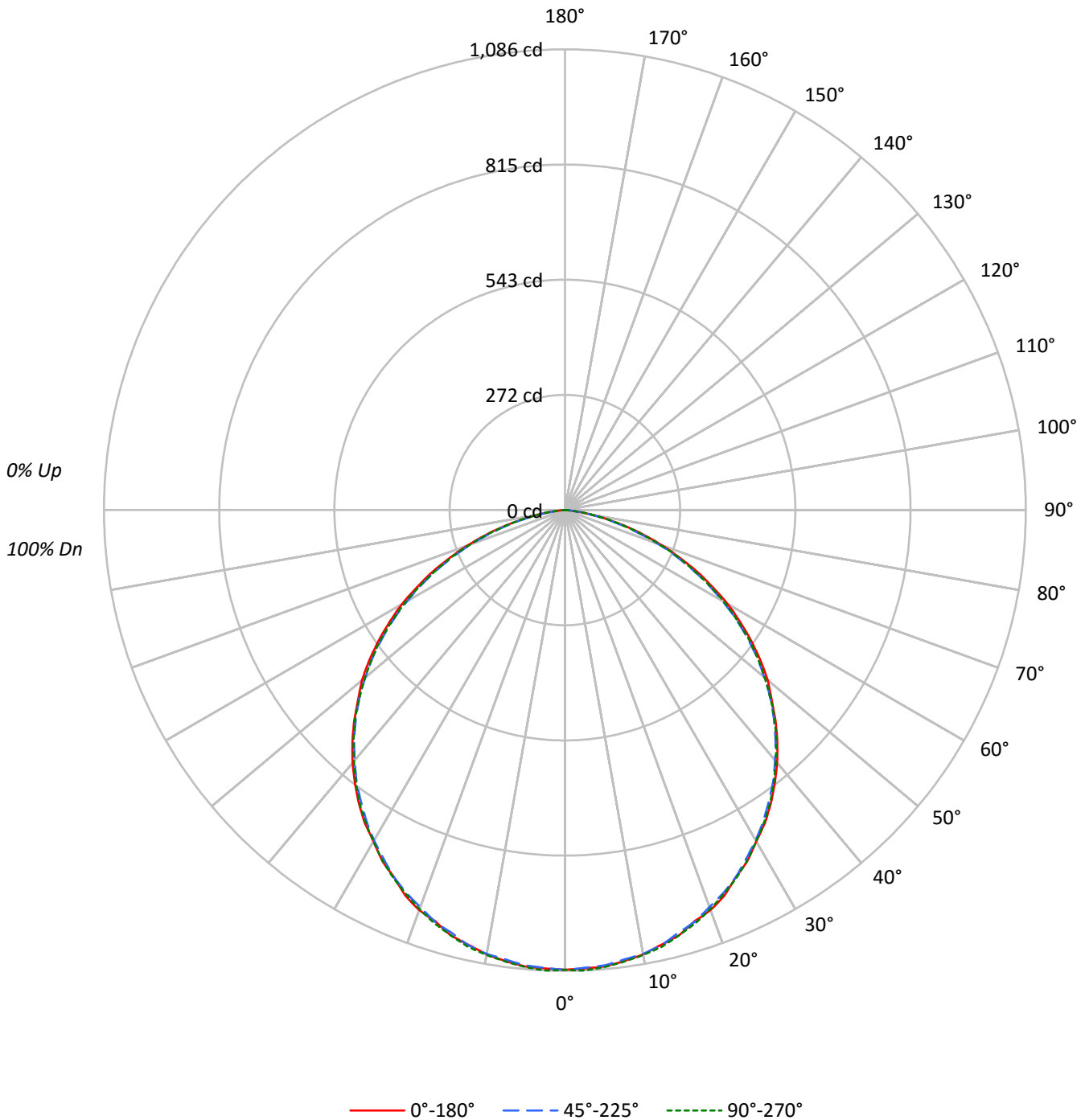
Lumens per Lamp: N/A
Luminaire Lumens: 2877.2 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 29.2
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	30	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°	2916	2916	2916
5°	2917	2910	2921
10°	2905	2902	2909
15°	2891	2874	2891
20°	2874	2852	2866
25°	2832	2832	2840
30°	2802	2793	2802
35°	2778	2753	2769
40°	2733	2706	2715
45°	2670	2651	2661
50°	2612	2570	2575
55°	2509	2462	2479
60°	2385	2309	2337
65°	2189	2108	2124
70°	1924	1843	1873
75°	1549	1457	1510
80°	1046	987	1046
85°	472	432	472



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	3.6
10°-20°	292.1	10.2
20°-30°	439.7	15.3
30°-40°	525.8	18.3
40°-50°	537.9	18.7
50°-60°	470.3	16.3
60°-70°	330.8	11.5
70°-80°	154.2	5.4
80°-90°	24.0	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°	834.2	29.0
0°-40°	1360.0	47.3
0°-60°	2368.2	82.3
0°-90°	2877.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2877.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1084	1084	1084	1084	1084	
5°	1080	1076	1077	1075	1081	102
15°	1038	1037	1032	1034	1038	292
25°	954	955	954	952	956	441
35°	846	844	838	838	843	528
45°	702	699	697	697	699	541
55°	535	530	525	522	528	478
65°	344	338	331	330	334	339
75°	149	145	140	141	145	160
85°	15	14	14	15	15	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1083.7	1083.7	1083.7	1083.7	1083.7
2.5°	1081.2	1083.7	1079.9	1078.6	1086.2
5°	1079.9	1076.1	1077.3	1074.8	1081.2
7.5°	1072.2	1072.2	1068.4	1069.7	1073.5
10°	1063.3	1060.8	1062.1	1062.1	1064.6
12.5°	1049.3	1051.9	1050.6	1050.6	1054.4
15°	1037.9	1036.6	1031.5	1034.0	1037.9
17.5°	1016.2	1020.0	1017.5	1017.5	1021.3
20°	1003.5	1000.9	995.8	998.4	1000.9
22.5°	983.1	980.6	976.7	978.0	979.3
25°	953.8	955.1	953.8	952.5	956.4
27.5°	932.2	928.3	925.8	925.8	930.9
30°	901.6	904.1	899.0	899.0	901.6
32.5°	876.1	874.9	869.8	871.0	873.6
35°	845.6	844.3	837.9	837.9	843.0
37.5°	812.5	809.9	806.1	803.5	808.6
40°	778.1	778.1	770.4	767.9	773.0
42.5°	741.1	736.0	734.8	736.0	737.3
45°	701.7	699.1	696.6	696.6	699.1
47.5°	660.9	659.6	657.1	654.5	657.1
50°	624.0	616.3	613.8	613.8	615.1
52.5°	580.7	573.0	570.5	568.0	571.8
55°	534.8	529.8	524.7	522.1	528.5
57.5°	489.0	482.6	477.5	478.8	480.1
60°	443.2	434.2	429.1	427.9	434.2
62.5°	392.2	387.1	380.8	380.8	383.3
65°	343.8	337.5	331.1	329.8	333.6
67.5°	291.6	289.1	282.7	280.2	287.8
70°	244.5	236.9	234.3	231.8	238.1
72.5°	196.1	188.5	185.9	187.2	192.3
75°	149.0	145.2	140.1	141.4	145.2
77.5°	105.7	103.1	99.3	101.9	105.7
80°	67.5	66.2	63.7	64.9	67.5
82.5°	39.5	38.2	35.7	36.9	36.9
85°	15.3	14.0	14.0	15.3	15.3
87.5°	3.8	3.8	3.8	2.5	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)