

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: P312435

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-CP250-W2A-U-3000K**

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: P312435  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-44-UNV-L83050-S-CP250-W2A-U-3000K  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET  
Light Source: (168) 3000K TUNABLE 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**

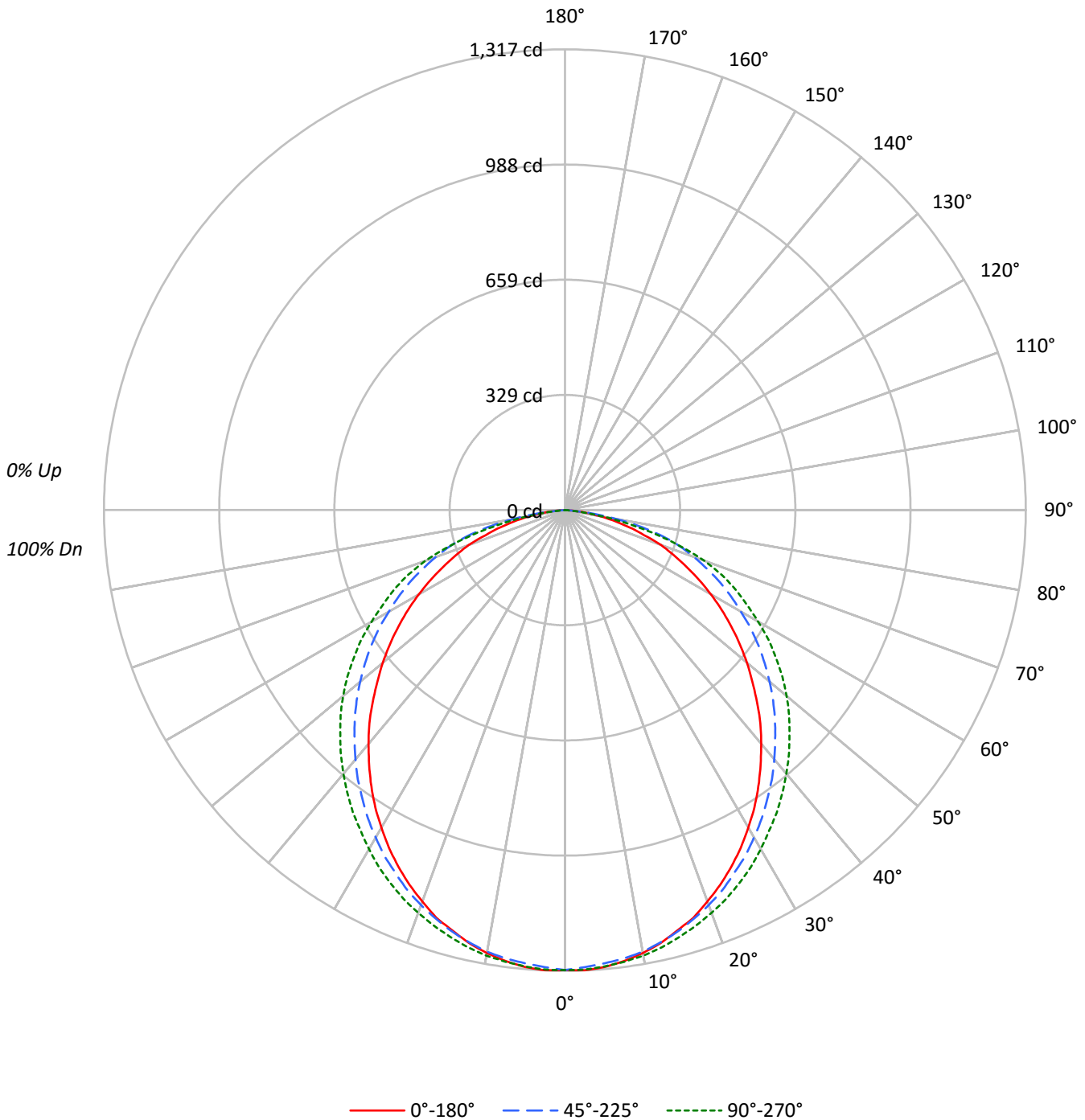
Lumens per Lamp: N/A  
Luminaire Lumens: 3683.0 lumens  
Efficiency: N/A  
Efficacy: 96.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 38.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3538	3538	3538
5°	3542	3512	3537
10°	3513	3503	3533
15°	3465	3475	3520
20°	3409	3441	3509
25°	3340	3399	3497
30°	3257	3359	3478
35°	3167	3311	3467
40°	3066	3271	3458
45°	2954	3231	3454
50°	2844	3195	3463
55°	2724	3170	3453
60°	2595	3125	3430
65°	2442	3116	3430
70°	2299	3089	3333
75°	1993	3018	2848
80°	1613	2433	1895
85°	1071	846	565



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.2	3.4
10°-20°	353.3	9.6
20°-30°	529.9	14.4
30°-40°	632.2	17.2
40°-50°	653.5	17.7
50°-60°	596.7	16.2
60°-70°	469.6	12.7
70°-80°	273.3	7.4
80°-90°	50.4	1.4
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°	1007.4	27.4
0°-40°	1639.5	44.5
0°-60°	2889.7	78.5
0°-90°	3683.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3683.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1315	1315	1315	1315	1315	
5°	1311	1308	1300	1311	1309	124
15°	1244	1245	1247	1264	1264	351
25°	1125	1130	1145	1172	1178	518
35°	964	977	1008	1046	1056	603
45°	776	802	849	897	908	599
55°	581	612	676	725	736	519
65°	384	424	489	528	539	381
75°	192	237	290	285	274	204
85°	35	49	27	22	18	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1314.8	1314.8	1314.8	1314.8	1314.8
2.5°	1316.6	1312.9	1307.5	1316.6	1314.8
5°	1311.1	1307.5	1300.2	1311.1	1309.3
7.5°	1300.2	1296.5	1292.9	1303.8	1302.0
10°	1285.6	1283.7	1281.9	1294.7	1292.9
12.5°	1267.3	1267.3	1265.5	1280.1	1280.1
15°	1243.6	1245.4	1247.2	1263.6	1263.6
17.5°	1221.6	1219.8	1225.3	1243.6	1245.4
20°	1190.6	1194.2	1201.6	1223.5	1225.3
22.5°	1159.6	1163.2	1176.0	1197.9	1203.4
25°	1124.9	1130.3	1144.9	1172.3	1177.8
27.5°	1088.3	1095.6	1115.7	1144.9	1150.4
30°	1048.2	1059.1	1081.0	1113.9	1119.4
32.5°	1008.0	1018.9	1046.3	1079.2	1086.5
35°	964.2	976.9	1008.0	1046.3	1055.5
37.5°	918.5	934.9	971.5	1009.8	1020.8
40°	872.9	891.1	931.3	971.5	984.3
42.5°	827.2	845.5	889.3	934.9	947.7
45°	776.1	801.6	849.1	896.6	907.6
47.5°	726.8	754.2	807.1	854.6	869.2
50°	679.3	706.7	763.3	812.6	827.2
52.5°	630.0	659.2	719.5	770.6	783.4
55°	580.7	611.7	675.6	724.9	735.9
57.5°	531.4	564.3	630.0	677.5	690.3
60°	482.1	516.8	580.7	628.2	637.3
62.5°	432.8	469.3	535.0	577.0	586.2
65°	383.5	423.6	489.4	527.7	538.7
67.5°	336.0	376.2	440.1	476.6	485.7
70°	292.2	328.7	392.6	420.0	423.6
72.5°	237.4	283.0	345.1	359.7	350.6
75°	191.7	237.4	290.3	284.9	273.9
77.5°	146.1	191.7	226.4	208.2	193.6
80°	104.1	149.7	157.0	129.7	122.3
82.5°	67.6	104.1	87.7	67.6	54.8
85°	34.7	49.3	27.4	21.9	18.3
87.5°	11.0	7.3	3.7	3.7	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)