

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: P314260

Luminaire Tested: **24FCZ2-35-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: P314260  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-35-UNV-L83050-S-CP250-W2A-U-3000K  
Description: 2'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**

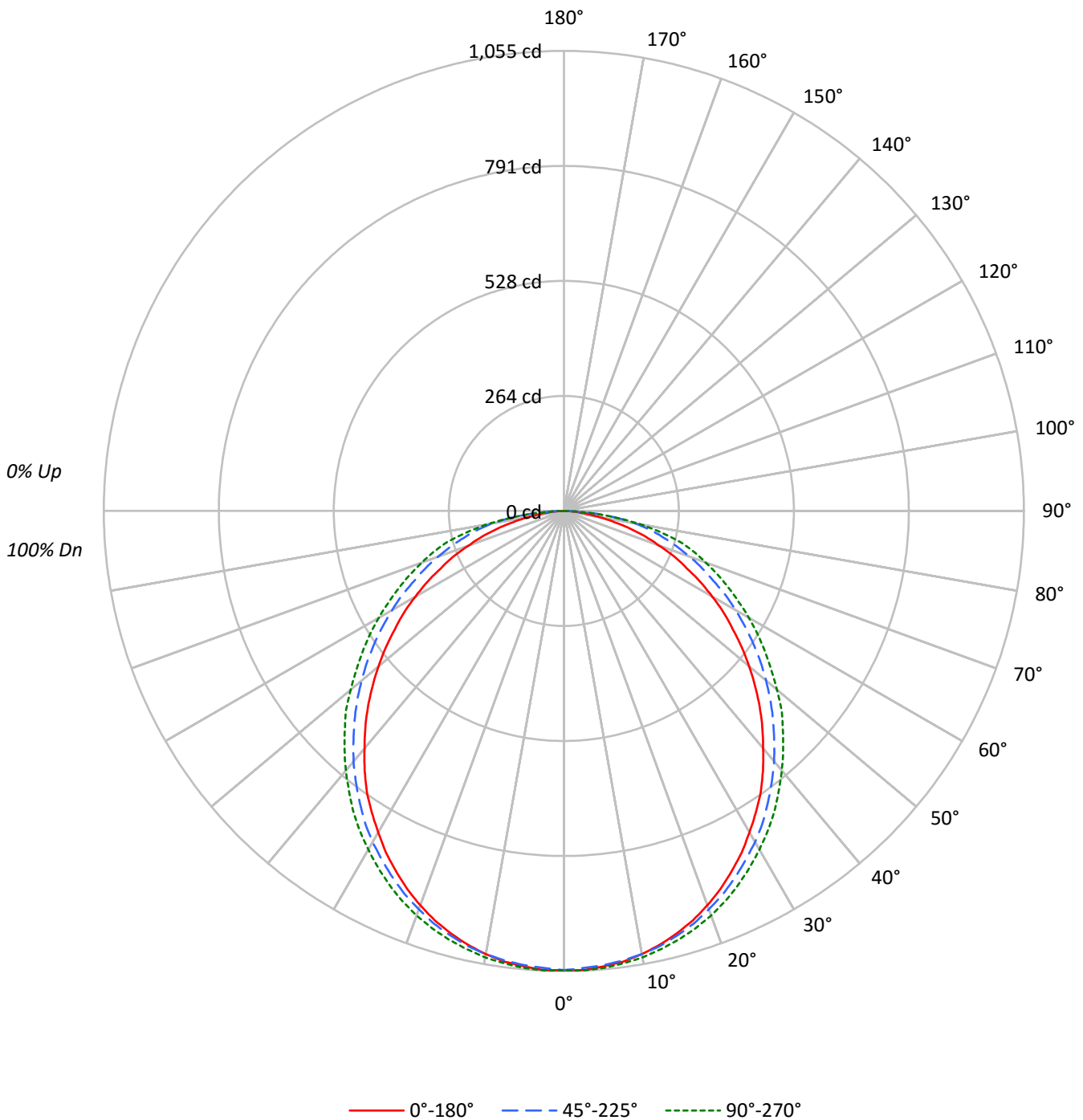
Lumens per Lamp: N/A  
Luminaire Lumens: 2997.0 lumens  
Efficiency: N/A  
Efficacy: 107.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	1417	1417	1417
5°	1416	1412	1421
10°	1410	1410	1420
15°	1396	1403	1417
20°	1378	1392	1414
25°	1352	1378	1405
30°	1322	1362	1393
35°	1293	1340	1382
40°	1249	1317	1366
45°	1208	1291	1351
50°	1162	1267	1335
55°	1110	1244	1322
60°	1058	1224	1319
65°	991	1203	1328
70°	917	1210	1363
75°	821	1232	1440
80°	664	1306	1409
85°	500	1147	1116



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.7	3.3
10°-20°	284.8	9.5
20°-30°	428.1	14.3
30°-40°	510.0	17.0
40°-50°	521.9	17.4
50°-60°	469.9	15.7
60°-70°	369.0	12.3
70°-80°	239.5	8.0
80°-90°	74.1	2.5
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°	812.6	27.1
0°-40°	1322.6	44.1
0°-60°	2314.4	77.2
0°-90°	2997.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2997.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1053	1053	1053	1053	1053	
5°	1048	1050	1045	1051	1052	100
15°	1002	1005	1007	1016	1018	283
25°	911	919	928	943	946	420
35°	787	797	816	836	842	491
45°	635	650	679	704	710	490
55°	473	494	530	558	564	424
65°	311	335	378	409	417	310
75°	158	188	237	269	277	167
85°	32	60	74	72	72	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1052.9	1052.9	1052.9	1052.9	1052.9
2.5°	1053.8	1053.8	1049.1	1053.8	1054.8
5°	1048.1	1050.0	1045.3	1051.0	1051.9
7.5°	1042.4	1042.4	1039.5	1045.3	1046.2
10°	1031.9	1032.9	1031.9	1038.6	1039.5
12.5°	1018.6	1020.5	1021.5	1028.1	1029.1
15°	1002.4	1005.3	1007.2	1015.7	1017.6
17.5°	984.3	987.2	991.9	1001.5	1003.4
20°	962.4	966.2	971.9	984.3	987.2
22.5°	938.6	942.4	952.0	963.4	968.1
25°	911.0	918.6	928.2	943.4	946.2
27.5°	883.4	890.1	902.5	918.6	922.4
30°	851.1	861.5	876.8	892.9	896.7
32.5°	819.6	830.1	848.2	865.3	870.1
35°	787.3	796.8	815.8	835.8	841.5
37.5°	750.1	762.5	783.5	803.5	809.2
40°	711.1	726.3	750.1	771.1	777.7
42.5°	674.0	690.2	714.0	736.8	744.4
45°	635.0	650.2	678.7	704.4	710.2
47.5°	595.0	612.1	642.6	668.3	677.8
50°	555.0	573.1	605.4	632.1	637.8
52.5°	515.0	534.0	568.3	596.9	599.7
55°	473.1	494.1	530.2	557.8	563.6
57.5°	435.0	453.1	492.2	520.7	527.4
60°	393.2	413.1	455.0	481.7	490.3
62.5°	353.2	374.1	417.9	444.6	452.2
65°	311.3	335.1	377.9	409.3	417.0
67.5°	275.1	298.0	343.7	374.1	381.7
70°	233.2	258.9	307.5	338.9	346.5
72.5°	197.1	223.7	272.3	302.7	314.1
75°	158.0	188.5	237.0	269.4	277.0
77.5°	119.9	155.2	204.7	229.4	229.4
80°	85.7	122.8	168.5	179.9	181.8
82.5°	56.2	92.3	124.7	123.8	123.8
85°	32.4	60.0	74.3	72.3	72.3
87.5°	12.4	24.8	26.7	26.7	25.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)