

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: P313845

Luminaire Tested: **24FCZ2-35HE-UNV-L83050-CA125-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: P313845  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-35HE-UNV-L83050-CA125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 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**

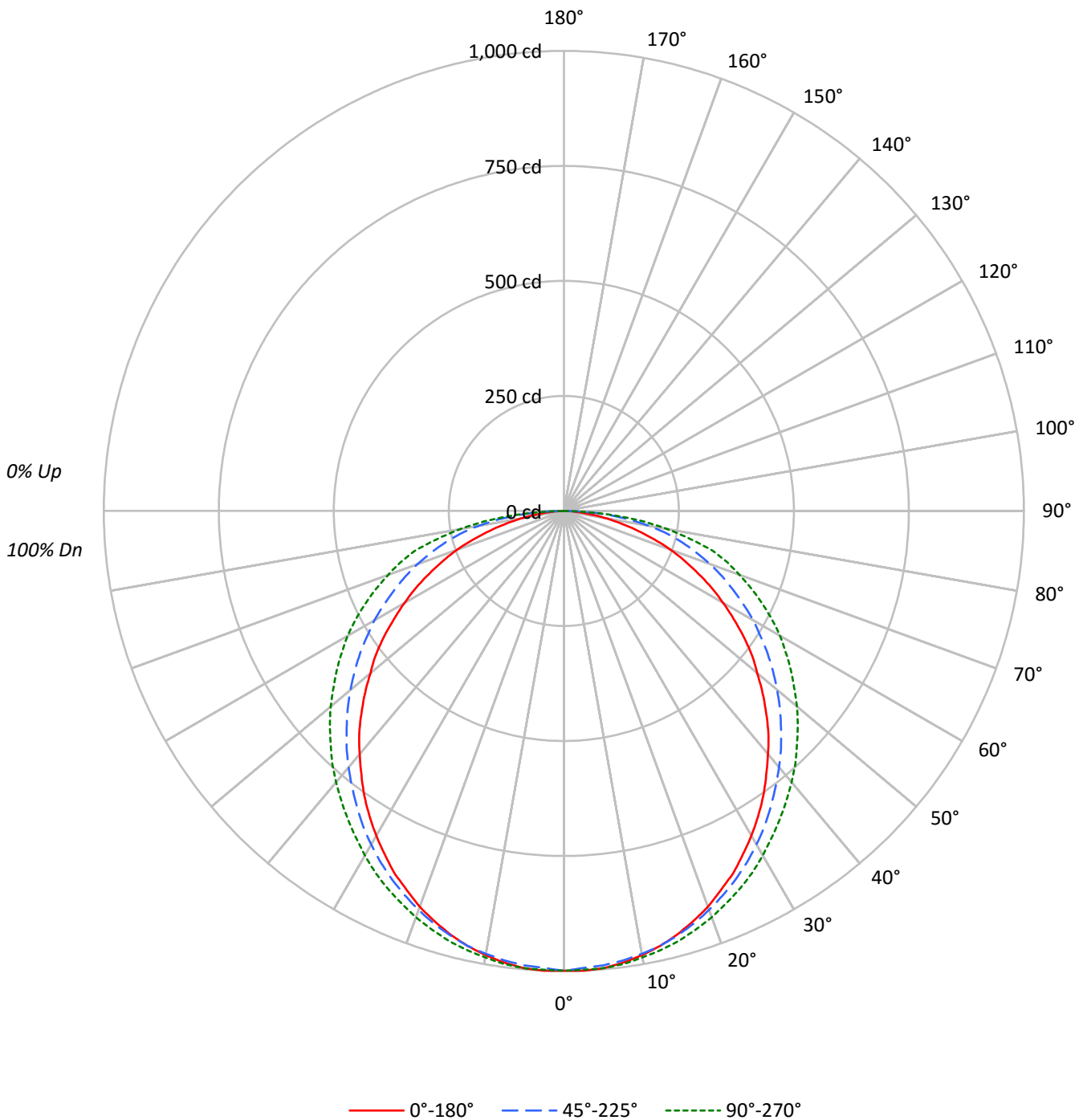
Lumens per Lamp: N/A  
Luminaire Lumens: 3030.0 lumens  
Efficiency: N/A  
Efficacy: 117.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	1345	1345	1345
5°	1347	1339	1347
10°	1339	1335	1346
15°	1327	1330	1347
20°	1311	1321	1346
25°	1291	1312	1345
30°	1267	1301	1343
35°	1242	1288	1344
40°	1213	1278	1353
45°	1184	1270	1364
50°	1149	1267	1385
55°	1120	1269	1413
60°	1077	1280	1461
65°	1027	1293	1514
70°	973	1333	1598
75°	868	1390	1746
80°	740	1472	1784
85°	528	1459	1707



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.6	3.1
10°-20°	270.4	8.9
20°-30°	408.4	13.5
30°-40°	492.2	16.2
40°-50°	516.8	17.1
50°-60°	483.5	16.0
60°-70°	399.3	13.2
70°-80°	272.1	9.0
80°-90°	92.8	3.1
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°	773.4	25.5
0°-40°	1265.6	41.8
0°-60°	2265.9	74.8
0°-90°	3030.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3030.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	999	999	999	999	999	
5°	997	996	991	997	997	95
15°	953	954	955	965	967	269
25°	870	874	884	901	906	400
35°	756	764	784	810	818	472
45°	622	635	668	704	717	480
55°	478	497	541	585	602	426
65°	323	350	406	457	476	320
75°	167	205	267	318	336	178
85°	34	67	94	107	111	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	999.3	999.3	999.3	999.3	999.3
2.5°	1000.3	999.3	994.2	999.3	998.3
5°	997.3	996.3	991.2	997.3	997.3
7.5°	990.2	990.2	985.2	992.2	993.2
10°	980.2	980.2	977.2	985.2	985.2
12.5°	968.1	968.1	968.1	976.1	977.2
15°	953.0	954.0	955.0	965.1	967.1
17.5°	934.9	936.9	940.0	952.0	954.0
20°	915.8	917.8	922.9	936.9	940.0
22.5°	891.7	896.7	903.8	919.8	922.9
25°	869.6	873.6	883.7	900.7	905.8
27.5°	842.4	848.5	861.5	879.6	886.7
30°	815.3	821.3	837.4	858.5	864.6
32.5°	786.1	795.2	812.3	834.4	841.4
35°	756.0	764.0	784.1	810.3	818.3
37.5°	722.8	733.9	756.0	784.1	794.2
40°	690.6	702.7	727.8	758.0	770.1
42.5°	658.5	670.5	698.7	732.9	744.9
45°	622.3	635.3	667.5	703.7	716.8
47.5°	586.1	602.2	637.4	675.6	689.6
50°	548.9	567.0	605.2	645.4	661.5
52.5°	515.7	532.8	573.0	616.2	631.3
55°	477.5	496.6	540.9	585.1	602.2
57.5°	438.3	459.4	506.7	554.9	572.0
60°	400.1	423.2	475.5	523.8	542.9
62.5°	362.9	386.0	440.3	490.6	509.7
65°	322.7	349.8	406.1	457.4	475.5
67.5°	284.5	313.7	373.0	423.2	441.3
70°	247.3	275.5	338.8	388.0	406.1
72.5°	207.1	239.3	302.6	353.9	373.0
75°	166.9	205.1	267.4	317.7	335.8
77.5°	129.7	168.9	231.2	272.4	281.5
80°	95.5	135.7	190.0	219.2	230.2
82.5°	61.3	101.5	144.8	165.9	174.9
85°	34.2	67.4	94.5	106.6	110.6
87.5°	14.1	29.2	38.2	43.2	43.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)