

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: P313846

Luminaire Tested: **24FCZ2-35HE-UNV-L83050-CA125-W2A-U-3500K**

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: P313846  
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-3500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 3500K 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**

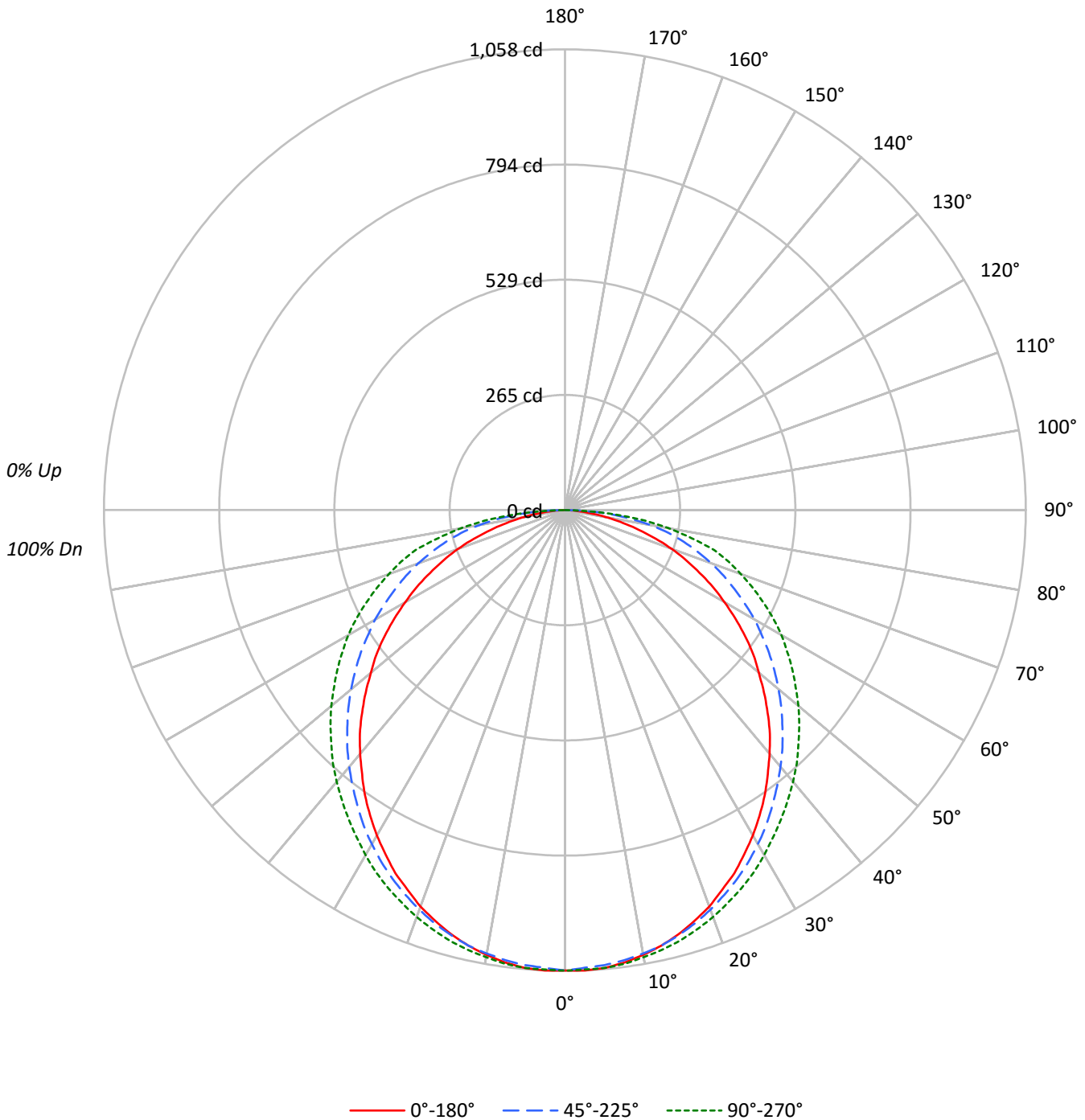
Lumens per Lamp: N/A  
Luminaire Lumens: 3206.0 lumens  
Efficiency: N/A  
Efficacy: 123.3 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	1423	1423	1423
5°	1425	1417	1425
10°	1417	1413	1424
15°	1405	1408	1425
20°	1387	1398	1424
25°	1366	1388	1423
30°	1340	1377	1421
35°	1314	1363	1422
40°	1284	1353	1431
45°	1253	1344	1443
50°	1216	1340	1465
55°	1185	1342	1495
60°	1139	1354	1546
65°	1087	1368	1602
70°	1030	1410	1690
75°	918	1471	1847
80°	783	1557	1888
85°	559	1544	1806



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.1	3.1
10°-20°	286.1	8.9
20°-30°	432.2	13.5
30°-40°	520.8	16.2
40°-50°	546.8	17.1
50°-60°	511.6	16.0
60°-70°	422.5	13.2
70°-80°	287.9	9.0
80°-90°	98.2	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°	818.3	25.5
0°-40°	1339.2	41.8
0°-60°	2397.5	74.8
0°-90°	3206.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3206.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1057	1057	1057	1057	1057	
5°	1055	1054	1049	1055	1055	100
15°	1008	1009	1010	1021	1023	284
25°	920	924	935	953	958	423
35°	800	808	830	857	866	500
45°	658	672	706	745	758	508
55°	505	526	572	619	637	451
65°	341	370	430	484	503	339
75°	177	217	283	336	355	188
85°	36	71	100	113	117	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1057.3	1057.3	1057.3	1057.3	1057.3
2.5°	1058.4	1057.3	1052.0	1057.3	1056.2
5°	1055.2	1054.1	1048.8	1055.2	1055.2
7.5°	1047.7	1047.7	1042.4	1049.9	1050.9
10°	1037.1	1037.1	1033.9	1042.4	1042.4
12.5°	1024.3	1024.3	1024.3	1032.8	1033.9
15°	1008.4	1009.4	1010.5	1021.1	1023.3
17.5°	989.2	991.4	994.6	1007.3	1009.4
20°	969.0	971.2	976.5	991.4	994.6
22.5°	943.5	948.8	956.3	973.3	976.5
25°	920.1	924.3	935.0	953.1	958.4
27.5°	891.4	897.8	911.6	930.7	938.2
30°	862.7	869.0	886.1	908.4	914.8
32.5°	831.8	841.4	859.5	882.9	890.3
35°	799.9	808.4	829.7	857.3	865.8
37.5°	764.8	776.5	799.9	829.7	840.3
40°	730.8	743.5	770.1	802.0	814.8
42.5°	696.7	709.5	739.3	775.4	788.2
45°	658.4	672.3	706.3	744.6	758.4
47.5°	620.1	637.2	674.4	714.8	729.7
50°	580.8	599.9	640.3	682.9	699.9
52.5°	545.7	563.8	606.3	652.0	668.0
55°	505.3	525.5	572.3	619.1	637.2
57.5°	463.8	486.1	536.1	587.2	605.2
60°	423.3	447.8	503.1	554.2	574.4
62.5°	384.0	408.5	465.9	519.1	539.3
65°	341.4	370.2	429.7	484.0	503.1
67.5°	301.0	331.9	394.6	447.8	467.0
70°	261.7	291.5	358.5	410.6	429.7
72.5°	219.1	253.2	320.2	374.4	394.6
75°	176.6	217.0	282.9	336.1	355.3
77.5°	137.2	178.7	244.6	288.3	297.8
80°	101.1	143.6	201.0	231.9	243.6
82.5°	64.9	107.4	153.2	175.5	185.1
85°	36.2	71.3	100.0	112.8	117.0
87.5°	14.9	30.8	40.4	45.7	45.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)