

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: P310505

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CA125-W2A-U-5500K**

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: P310505  
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: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-5500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 5500K 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**

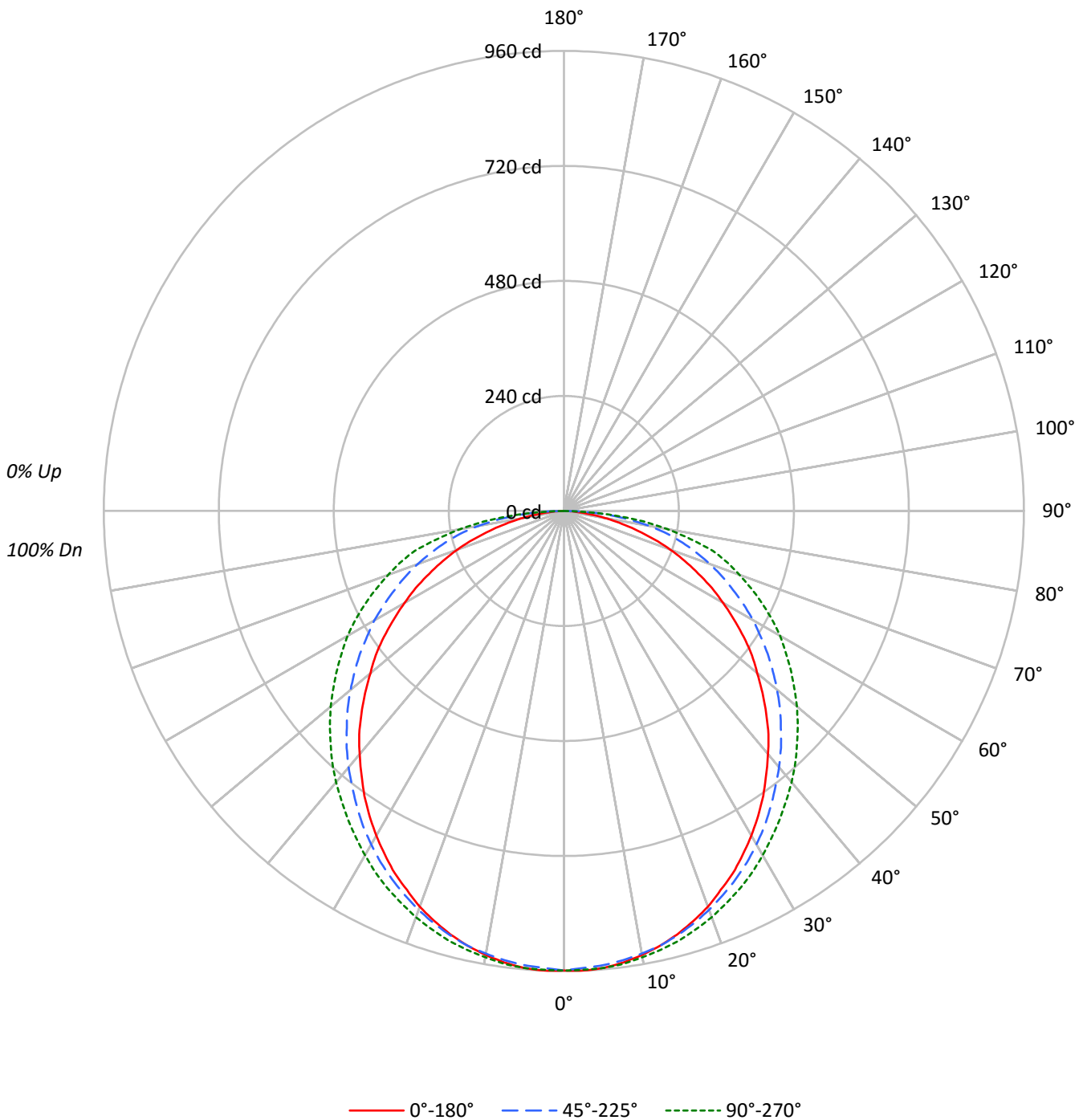
Lumens per Lamp: N/A  
Luminaire Lumens: 2908.0 lumens  
Efficiency: N/A  
Efficacy: 134.0 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1290	1290	1290
5°	1293	1285	1293
10°	1285	1281	1292
15°	1274	1277	1293
20°	1259	1268	1292
25°	1239	1259	1291
30°	1216	1249	1289
35°	1192	1236	1290
40°	1164	1227	1298
45°	1136	1219	1309
50°	1103	1216	1329
55°	1075	1218	1356
60°	1033	1228	1402
65°	986	1241	1453
70°	934	1279	1533
75°	833	1334	1675
80°	711	1413	1712
85°	506	1400	1638



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.8	3.1
10°-20°	259.5	8.9
20°-30°	392.0	13.5
30°-40°	472.4	16.2
40°-50°	496.0	17.1
50°-60°	464.0	16.0
60°-70°	383.2	13.2
70°-80°	261.1	9.0
80°-90°	89.1	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°	742.3	25.5
0°-40°	1214.7	41.8
0°-60°	2174.7	74.8
0°-90°	2908.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2908.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	957	956	951	957	957	91
15°	915	916	917	926	928	258
25°	835	838	848	864	869	384
35°	726	733	753	778	785	453
45°	597	610	641	675	688	461
55°	458	477	519	562	578	409
65°	310	336	390	439	456	307
75°	160	197	257	305	322	171
85°	33	65	91	102	106	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	959.0	959.0	959.0	959.0	959.0
2.5°	960.0	959.0	954.2	959.0	958.1
5°	957.1	956.1	951.3	957.1	957.1
7.5°	950.3	950.3	945.5	952.3	953.2
10°	940.7	940.7	937.8	945.5	945.5
12.5°	929.1	929.1	929.1	936.8	937.8
15°	914.7	915.6	916.6	926.2	928.2
17.5°	897.3	899.2	902.1	913.7	915.6
20°	879.0	880.9	885.7	899.2	902.1
22.5°	855.8	860.6	867.4	882.8	885.7
25°	834.6	838.4	848.1	864.5	869.3
27.5°	808.5	814.3	826.9	844.2	851.0
30°	782.5	788.3	803.7	824.0	829.7
32.5°	754.5	763.2	779.6	800.8	807.6
35°	725.5	733.3	752.6	777.6	785.4
37.5°	693.7	704.3	725.5	752.6	762.2
40°	662.8	674.4	698.5	727.5	739.1
42.5°	632.0	643.5	670.6	703.4	714.9
45°	597.2	609.8	640.6	675.4	687.9
47.5°	562.5	577.9	611.7	648.4	661.9
50°	526.8	544.2	580.8	619.4	634.9
52.5°	495.0	511.4	549.9	591.4	605.9
55°	458.3	476.6	519.1	561.5	577.9
57.5°	420.7	440.9	486.3	532.6	549.0
60°	384.0	406.2	456.4	502.7	521.0
62.5°	348.3	370.5	422.6	470.8	489.2
65°	309.7	335.8	389.8	439.0	456.4
67.5°	273.0	301.0	357.9	406.2	423.6
70°	237.3	264.4	325.1	372.4	389.8
72.5°	198.8	229.6	290.4	339.6	357.9
75°	160.2	196.8	256.6	304.9	322.3
77.5°	124.5	162.1	221.9	261.5	270.2
80°	91.7	130.3	182.4	210.3	220.9
82.5°	58.9	97.4	138.9	159.2	167.9
85°	32.8	64.6	90.7	102.3	106.1
87.5°	13.5	28.0	36.7	41.5	41.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)