

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: P310557

Luminaire Tested: **24FCZ2-30-UNV-L82765-CP125-W2A-U-4500K**

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: P310557  
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: 24FCZ2-30-UNV-L82765-CP125-W2A-U-4500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 4500K 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**

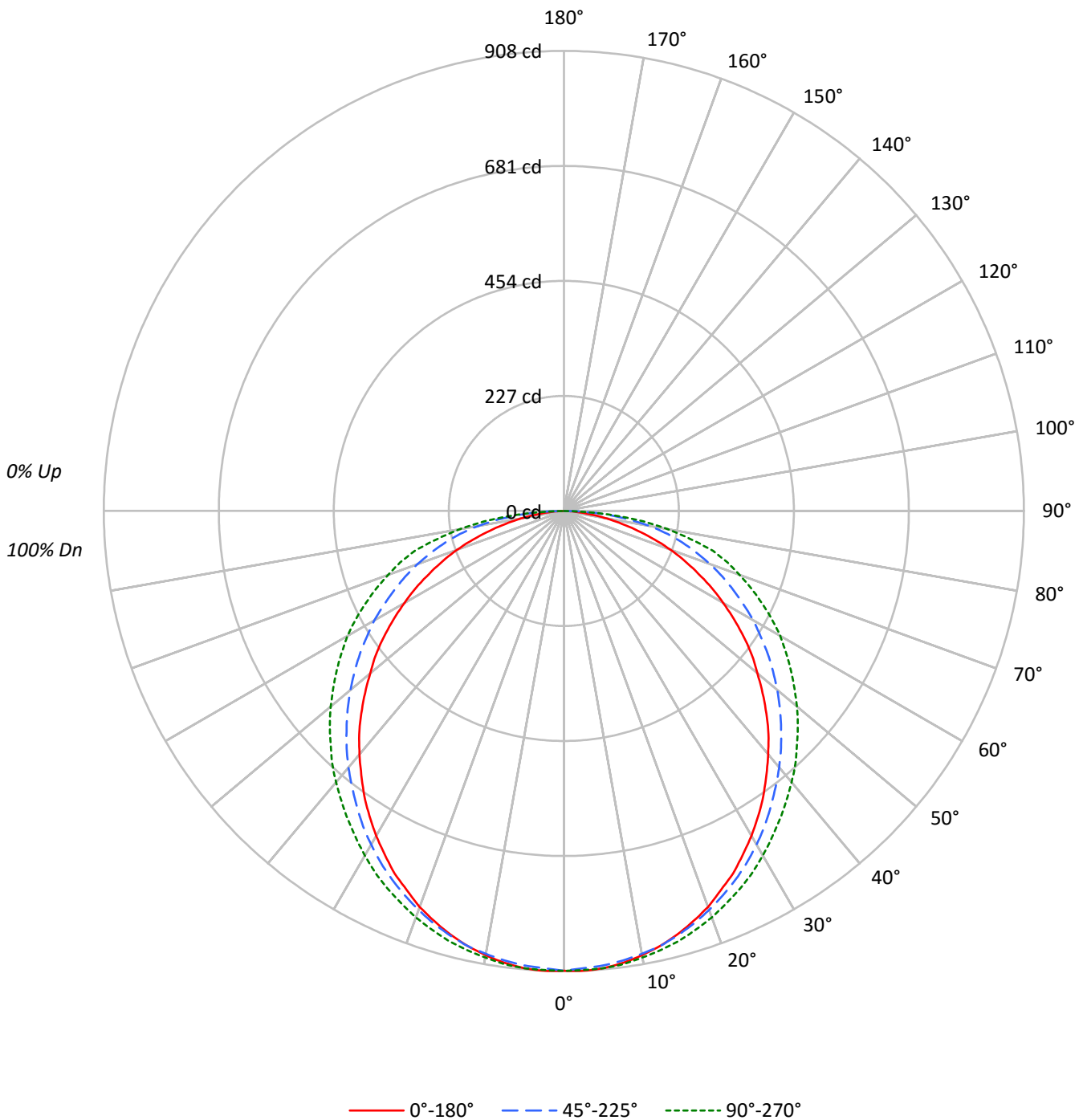
Lumens per Lamp: N/A  
Luminaire Lumens: 2752.0 lumens  
Efficiency: N/A  
Efficacy: 115.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1221	1221	1221
5°	1223	1216	1223
10°	1216	1213	1223
15°	1206	1208	1224
20°	1191	1200	1222
25°	1173	1192	1221
30°	1150	1182	1220
35°	1128	1170	1221
40°	1102	1161	1228
45°	1075	1154	1239
50°	1043	1151	1258
55°	1017	1152	1283
60°	978	1162	1327
65°	933	1174	1375
70°	884	1210	1451
75°	788	1263	1586
80°	672	1337	1620
85°	479	1325	1550



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.9	3.1
10°-20°	245.6	8.9
20°-30°	371.0	13.5
30°-40°	447.1	16.2
40°-50°	469.4	17.1
50°-60°	439.1	16.0
60°-70°	362.6	13.2
70°-80°	247.1	9.0
80°-90°	84.3	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°	702.4	25.5
0°-40°	1149.5	41.8
0°-60°	2058.0	74.8
0°-90°	2752.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2752.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	908	908	908	908	908	
5°	906	905	900	906	906	86
15°	866	866	867	876	878	244
25°	790	794	803	818	823	363
35°	687	694	712	736	743	429
45°	565	577	606	639	651	436
55°	434	451	491	531	547	387
65°	293	318	369	415	432	291
75°	152	186	243	288	305	162
85°	31	61	86	97	100	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	907.6	907.6	907.6	907.6	907.6
2.5°	908.5	907.6	903.0	907.6	906.7
5°	905.8	904.8	900.3	905.8	905.8
7.5°	899.4	899.4	894.8	901.2	902.1
10°	890.2	890.2	887.5	894.8	894.8
12.5°	879.3	879.3	879.3	886.6	887.5
15°	865.6	866.5	867.4	876.5	878.4
17.5°	849.1	851.0	853.7	864.7	866.5
20°	831.8	833.6	838.2	851.0	853.7
22.5°	809.9	814.5	820.8	835.5	838.2
25°	789.8	793.5	802.6	818.1	822.7
27.5°	765.1	770.6	782.5	798.9	805.3
30°	740.5	746.0	760.6	779.8	785.2
32.5°	714.0	722.2	737.8	757.8	764.2
35°	686.6	693.9	712.2	735.9	743.2
37.5°	656.5	666.5	686.6	712.2	721.3
40°	627.3	638.2	661.1	688.5	699.4
42.5°	598.1	609.0	634.6	665.6	676.6
45°	565.2	577.1	606.3	639.1	651.0
47.5°	532.3	546.9	578.9	613.6	626.4
50°	498.5	515.0	549.7	586.2	600.8
52.5°	468.4	483.9	520.4	559.7	573.4
55°	433.7	451.1	491.2	531.4	546.9
57.5°	398.1	417.3	460.2	504.0	519.5
60°	363.4	384.4	431.9	475.7	493.1
62.5°	329.6	350.6	399.9	445.6	462.9
65°	293.1	317.7	368.9	415.4	431.9
67.5°	258.4	284.9	338.7	384.4	400.8
70°	224.6	250.2	307.7	352.4	368.9
72.5°	188.1	217.3	274.8	321.4	338.7
75°	151.6	186.3	242.9	288.5	305.0
77.5°	117.8	153.4	210.0	247.4	255.7
80°	86.7	123.3	172.6	199.0	209.1
82.5°	55.7	92.2	131.5	150.7	158.9
85°	31.0	61.2	85.8	96.8	100.4
87.5°	12.8	26.5	34.7	39.3	39.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)