

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: P314175

Luminaire Tested: **24FCZ2-30HE-UNV-L83050-S-CP125-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: P314175  
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: 24FCZ2-30HE-UNV-L83050-S-CP125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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**

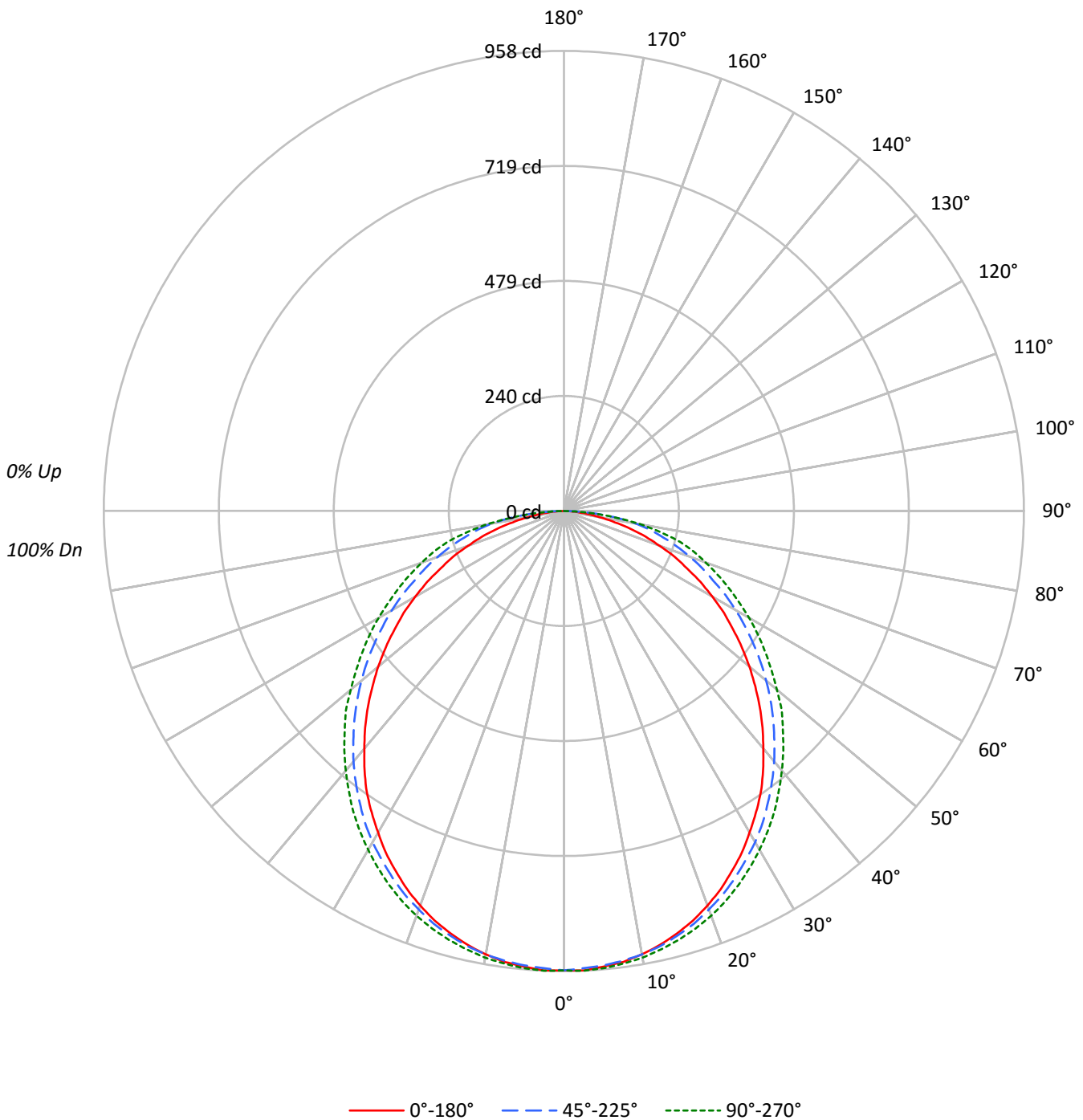
Lumens per Lamp: N/A  
Luminaire Lumens: 2723.0 lumens  
Efficiency: N/A  
Efficacy: 129.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1287	1287	1287
5°	1286	1283	1291
10°	1281	1281	1290
15°	1269	1275	1288
20°	1252	1264	1284
25°	1229	1252	1276
30°	1201	1238	1266
35°	1175	1217	1256
40°	1135	1197	1241
45°	1098	1173	1228
50°	1056	1151	1213
55°	1008	1130	1201
60°	961	1112	1199
65°	900	1093	1206
70°	834	1099	1238
75°	747	1120	1308
80°	603	1186	1280
85°	454	1042	1014



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.6	3.3
10°-20°	258.8	9.5
20°-30°	389.0	14.3
30°-40°	463.3	17.0
40°-50°	474.2	17.4
50°-60°	426.9	15.7
60°-70°	335.3	12.3
70°-80°	217.6	8.0
80°-90°	67.3	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°	738.3	27.1
0°-40°	1201.7	44.1
0°-60°	2102.8	77.2
0°-90°	2723.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2723.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	957	957	957	957	957	
5°	952	954	950	955	956	90
15°	911	913	915	923	925	257
25°	828	835	843	857	860	381
35°	715	724	741	759	765	446
45°	577	591	617	640	645	445
55°	430	449	482	507	512	385
65°	283	304	343	372	379	282
75°	144	171	215	245	252	152
85°	29	54	68	66	66	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	956.6	956.6	956.6	956.6	956.6
2.5°	957.5	957.5	953.1	957.5	958.3
5°	952.3	954.0	949.7	954.9	955.7
7.5°	947.1	947.1	944.5	949.7	950.6
10°	937.6	938.4	937.6	943.6	944.5
12.5°	925.5	927.2	928.1	934.1	935.0
15°	910.8	913.4	915.1	922.9	924.6
17.5°	894.3	896.9	901.3	909.9	911.6
20°	874.4	877.9	883.1	894.3	896.9
22.5°	852.8	856.3	864.9	875.3	879.6
25°	827.7	834.7	843.3	857.1	859.7
27.5°	802.7	808.7	819.9	834.7	838.1
30°	773.2	782.8	796.6	811.3	814.8
32.5°	744.7	754.2	770.6	786.2	790.5
35°	715.3	723.9	741.2	759.4	764.6
37.5°	681.6	692.8	711.8	730.0	735.2
40°	646.1	659.9	681.6	700.6	706.6
42.5°	612.4	627.1	648.7	669.5	676.4
45°	576.9	590.7	616.7	640.0	645.2
47.5°	540.6	556.1	583.8	607.2	615.8
50°	504.3	520.7	550.1	574.3	579.5
52.5°	467.9	485.2	516.4	542.3	544.9
55°	429.9	448.9	481.8	506.8	512.0
57.5°	395.3	411.7	447.2	473.1	479.2
60°	357.2	375.4	413.4	437.7	445.4
62.5°	320.9	339.9	379.7	403.9	410.8
65°	282.8	304.5	343.4	371.9	378.8
67.5°	250.0	270.7	312.2	339.9	346.8
70°	211.9	235.3	279.4	307.9	314.8
72.5°	179.0	203.3	247.4	275.0	285.4
75°	143.6	171.3	215.4	244.8	251.7
77.5°	109.0	141.0	186.0	208.4	208.4
80°	77.8	111.6	153.1	163.5	165.2
82.5°	51.0	83.9	113.3	112.4	112.4
85°	29.4	54.5	67.5	65.7	65.7
87.5°	11.2	22.5	24.2	24.2	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)