

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: P312280

Luminaire Tested: **14FCZ2-44-UNV-L83050-CP187-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: P312280
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-44-UNV-L83050-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 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

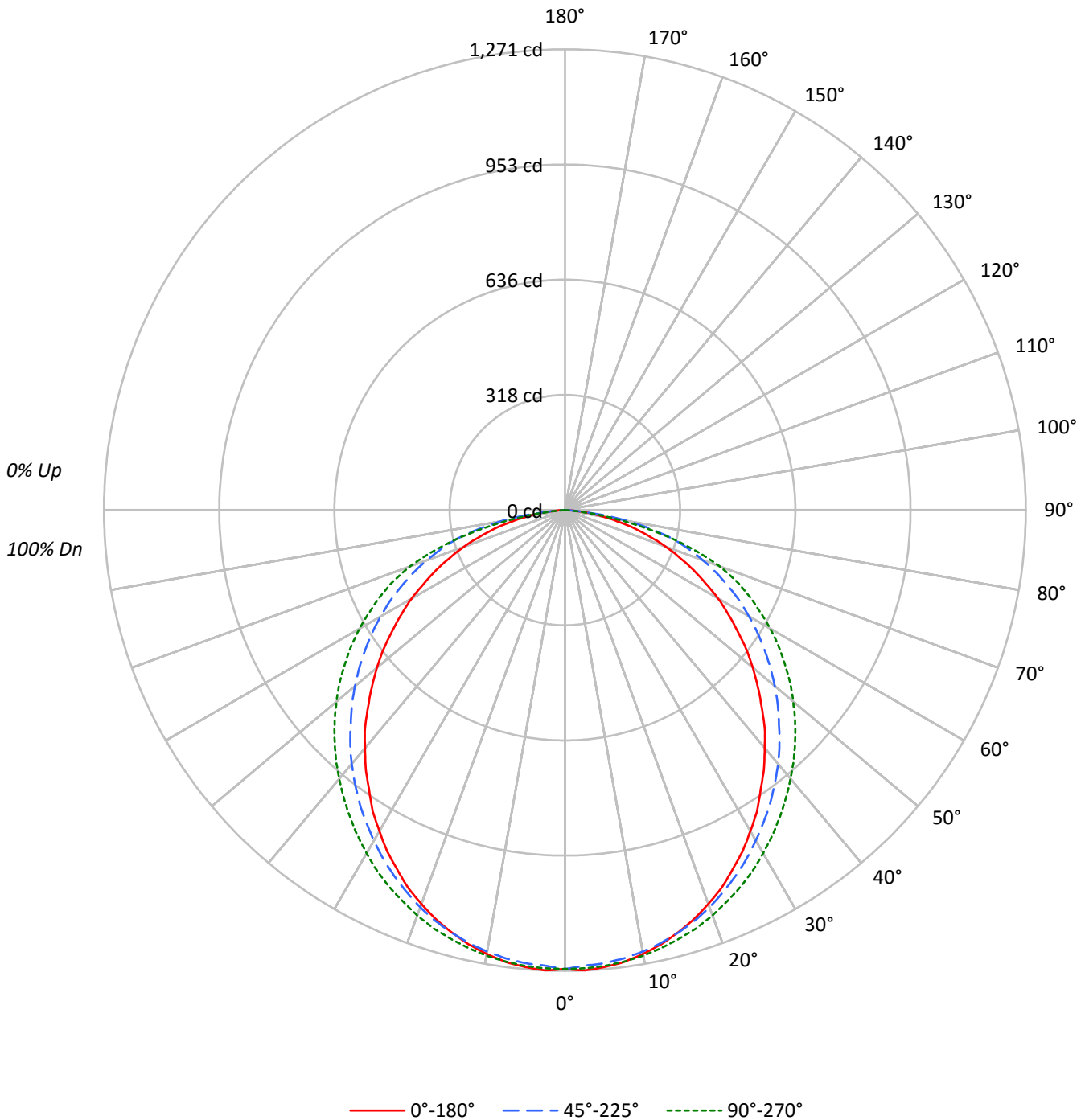
Lumens per Lamp: N/A
Luminaire Lumens: 3675.0 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): 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	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	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	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3407	3407	3407
5°	3418	3389	3409
10°	3397	3379	3410
15°	3360	3363	3408
20°	3311	3339	3407
25°	3248	3306	3404
30°	3178	3272	3397
35°	3093	3244	3394
40°	3011	3212	3400
45°	2919	3178	3418
50°	2834	3163	3441
55°	2726	3152	3472
60°	2629	3158	3519
65°	2494	3167	3574
70°	2341	3191	3572
75°	2121	3221	3229
80°	1740	2782	2298
85°	1291	1315	531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.8	3.3
10°-20°	342.2	9.3
20°-30°	515.5	14.0
30°-40°	618.6	16.8
40°-50°	644.8	17.5
50°-60°	596.9	16.2
60°-70°	482.3	13.1
70°-80°	294.1	8.0
80°-90°	60.7	1.7
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°	977.5	26.6
0°-40°	1596.2	43.4
0°-60°	2837.9	77.2
0°-90°	3675.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3675.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1266	1266	1266	1266	1266	
5°	1265	1262	1255	1264	1262	120
15°	1206	1207	1207	1223	1223	340
25°	1094	1100	1114	1142	1146	504
35°	942	956	987	1024	1033	590
45°	767	790	835	882	898	593
55°	581	611	672	724	740	521
65°	392	430	497	547	561	387
75°	204	249	310	315	311	214
85°	42	62	43	24	17	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1266.0	1266.0	1266.0	1266.0	1266.0
2.5°	1271.0	1266.9	1257.9	1266.9	1265.2
5°	1265.2	1262.0	1254.6	1263.6	1262.0
7.5°	1257.0	1253.8	1247.2	1257.9	1256.2
10°	1243.1	1241.5	1236.5	1248.8	1248.0
12.5°	1226.7	1225.9	1223.4	1237.4	1236.5
15°	1206.2	1207.0	1207.0	1223.4	1223.4
17.5°	1183.3	1184.9	1188.2	1206.2	1208.7
20°	1156.2	1159.5	1166.1	1186.6	1189.8
22.5°	1128.4	1130.8	1140.7	1165.3	1168.5
25°	1094.0	1100.5	1113.6	1141.5	1146.4
27.5°	1061.2	1066.9	1085.0	1113.6	1121.8
30°	1022.7	1031.7	1053.0	1084.1	1093.1
32.5°	985.8	995.6	1020.2	1056.3	1064.5
35°	941.5	956.3	987.4	1023.5	1033.3
37.5°	901.4	915.3	950.6	989.9	1001.4
40°	857.1	874.4	914.5	956.3	967.8
42.5°	816.2	832.6	876.0	918.6	934.2
45°	767.0	789.9	835.0	881.7	898.1
47.5°	721.9	744.9	796.5	846.5	861.2
50°	676.9	701.4	755.5	807.2	821.9
52.5°	630.2	656.4	714.6	766.2	783.4
55°	581.0	611.3	671.9	724.4	740.0
57.5°	534.3	565.4	630.2	683.4	699.0
60°	488.4	520.4	586.7	637.5	653.9
62.5°	437.6	475.3	544.1	594.1	606.4
65°	391.7	430.2	497.4	547.4	561.3
67.5°	343.3	385.1	452.3	498.2	511.3
70°	297.5	340.9	405.6	448.2	454.0
72.5°	248.3	292.5	358.1	385.1	385.1
75°	204.0	249.1	309.8	314.7	310.6
77.5°	155.7	205.7	245.0	235.2	225.3
80°	112.3	161.4	179.5	161.4	148.3
82.5°	75.4	117.2	108.2	86.0	76.2
85°	41.8	62.3	42.6	23.8	17.2
87.5°	15.6	13.9	4.1	4.1	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)