

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: P312256

Luminaire Tested: **14FCZ2-39-UNV-L83050-CP187-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: P312256
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: 14FCZ2-39-UNV-L83050-CP187-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 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: 3478.0 lumens
Efficiency: N/A
Efficacy: 104.4 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

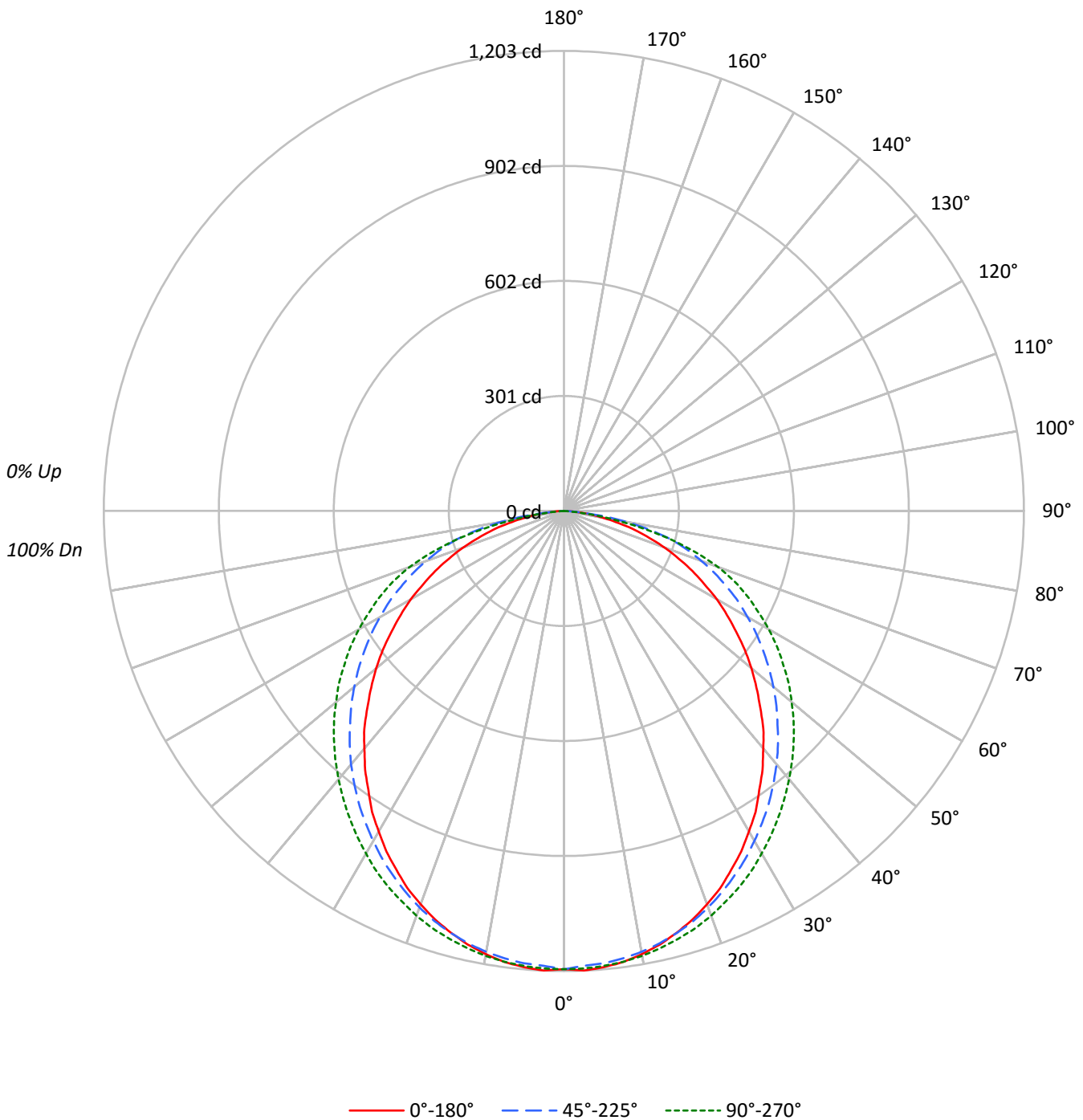
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3224	3224	3224
5°	3234	3207	3226
10°	3215	3198	3227
15°	3180	3182	3226
20°	3134	3160	3225
25°	3074	3129	3222
30°	3008	3096	3214
35°	2927	3070	3212
40°	2850	3040	3217
45°	2762	3008	3235
50°	2682	2993	3256
55°	2579	2983	3286
60°	2488	2989	3331
65°	2360	2997	3382
70°	2215	3020	3380
75°	2008	3047	3056
80°	1646	2631	2176
85°	1223	1244	503



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.4	3.3
10°-20°	323.9	9.3
20°-30°	487.9	14.0
30°-40°	585.5	16.8
40°-50°	610.2	17.5
50°-60°	564.9	16.2
60°-70°	456.4	13.1
70°-80°	278.3	8.0
80°-90°	57.5	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°	925.2	26.6
0°-40°	1510.6	43.4
0°-60°	2685.8	77.2
0°-90°	3478.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3478.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1198	1198	1198	1198	1198	
5°	1197	1194	1187	1196	1194	114
15°	1142	1142	1142	1158	1158	322
25°	1035	1042	1054	1080	1085	477
35°	891	905	934	969	978	558
45°	726	748	790	834	850	561
55°	550	578	636	686	700	493
65°	371	407	471	518	531	367
75°	193	236	293	298	294	203
85°	40	59	40	22	16	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1198.2	1198.2	1198.2	1198.2	1198.2
2.5°	1202.8	1199.0	1190.4	1199.0	1197.4
5°	1197.4	1194.3	1187.3	1195.9	1194.3
7.5°	1189.7	1186.5	1180.3	1190.4	1188.9
10°	1176.5	1174.9	1170.3	1181.9	1181.1
12.5°	1161.0	1160.2	1157.9	1171.0	1170.3
15°	1141.6	1142.3	1142.3	1157.9	1157.9
17.5°	1119.9	1121.4	1124.5	1141.6	1143.9
20°	1094.3	1097.4	1103.6	1123.0	1126.1
22.5°	1067.9	1070.2	1079.5	1102.8	1105.9
25°	1035.3	1041.5	1053.9	1080.3	1085.0
27.5°	1004.3	1009.7	1026.8	1053.9	1061.7
30°	967.9	976.4	996.5	1026.0	1034.5
32.5°	933.0	942.3	965.5	999.6	1007.4
35°	891.1	905.0	934.5	968.6	977.9
37.5°	853.1	866.3	899.6	936.8	947.7
40°	811.2	827.5	865.5	905.0	915.9
42.5°	772.4	787.9	829.0	869.4	884.1
45°	725.9	747.6	790.3	834.5	850.0
47.5°	683.2	704.9	753.8	801.1	815.1
50°	640.6	663.8	715.0	763.9	777.8
52.5°	596.4	621.2	676.3	725.1	741.4
55°	549.8	578.5	635.9	685.6	700.3
57.5°	505.6	535.1	596.4	646.8	661.5
60°	462.2	492.5	555.3	603.4	618.9
62.5°	414.1	449.8	514.9	562.3	573.9
65°	370.7	407.1	470.7	518.0	531.2
67.5°	324.9	364.5	428.1	471.5	483.9
70°	281.5	322.6	383.9	424.2	429.6
72.5°	235.0	276.9	338.9	364.5	364.5
75°	193.1	235.8	293.1	297.8	293.9
77.5°	147.3	194.7	231.9	222.6	213.3
80°	106.2	152.8	169.8	152.8	140.4
82.5°	71.3	110.9	102.4	81.4	72.1
85°	39.6	58.9	40.3	22.5	16.3
87.5°	14.7	13.2	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)