

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: P307979

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CA125-W2A-U-2700K**

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: P307979
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
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-L82765-S-CA125-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS,0.125" ACRYLIC SHEET
Light Source: (168) 2700K 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: 3435.0 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

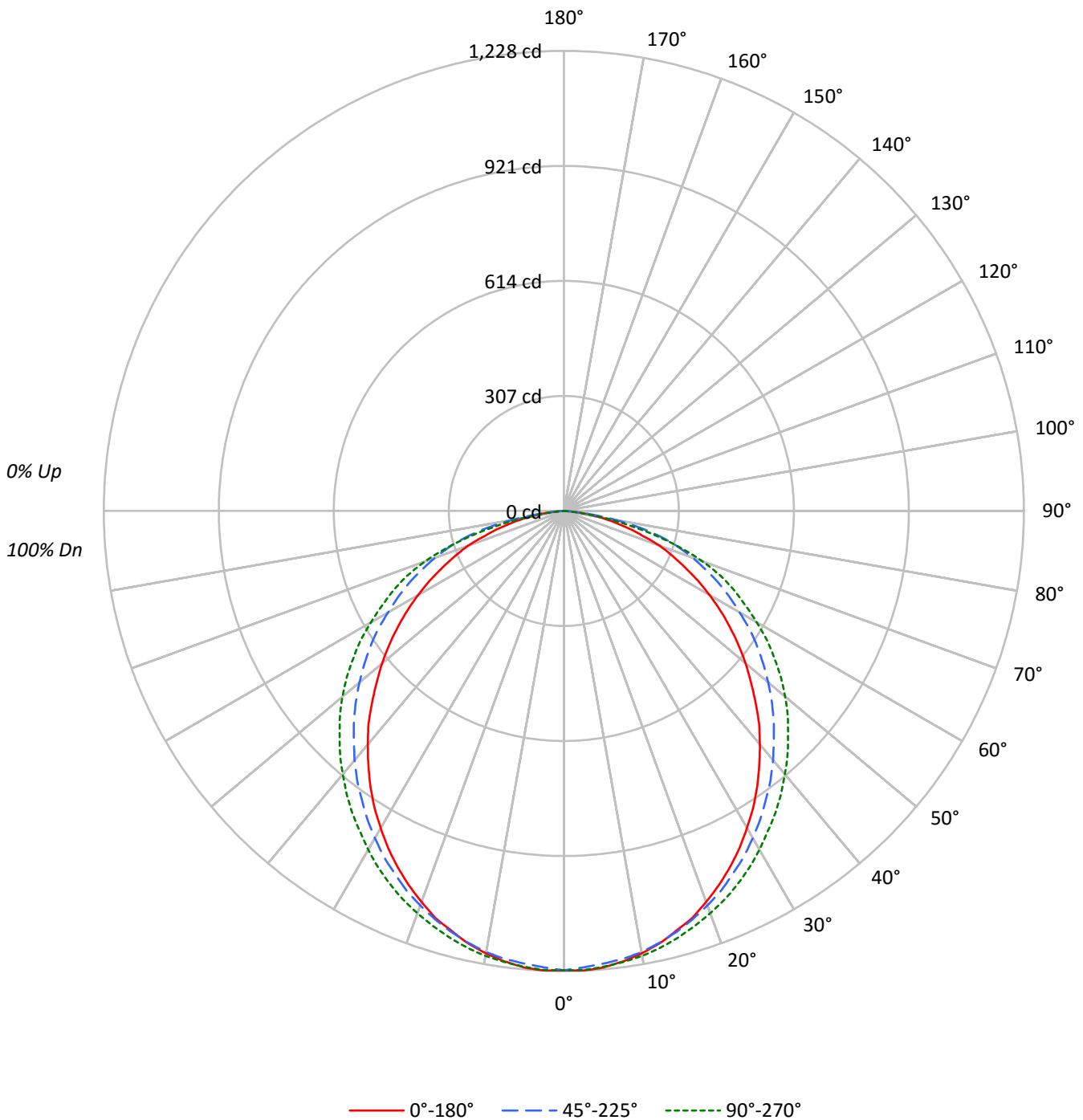
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3300	3300	3300
5°	3303	3276	3299
10°	3276	3267	3295
15°	3231	3241	3283
20°	3180	3209	3273
25°	3115	3170	3262
30°	3038	3133	3244
35°	2954	3088	3234
40°	2860	3051	3225
45°	2755	3014	3221
50°	2653	2980	3230
55°	2541	2957	3220
60°	2420	2915	3199
65°	2278	2906	3199
70°	2144	2881	3109
75°	1859	2816	2656
80°	1505	2270	1768
85°	1000	787	525



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.8	3.4
10°-20°	329.5	9.6
20°-30°	494.3	14.4
30°-40°	589.6	17.2
40°-50°	609.5	17.7
50°-60°	556.5	16.2
60°-70°	437.9	12.7
70°-80°	254.9	7.4
80°-90°	47.0	1.4
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°	939.5	27.4
0°-40°	1529.1	44.5
0°-60°	2695.2	78.5
0°-90°	3435.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3435.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1226	1226	1226	1226	1226	
5°	1223	1219	1213	1223	1221	116
15°	1160	1162	1163	1179	1179	327
25°	1049	1054	1068	1093	1098	483
35°	899	911	940	976	984	562
45°	724	748	792	836	846	559
55°	542	570	630	676	686	484
65°	358	395	456	492	502	355
75°	179	221	271	266	256	190
85°	32	46	26	20	17	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1226.2	1226.2	1226.2	1226.2	1226.2
2.5°	1227.9	1224.5	1219.4	1227.9	1226.2
5°	1222.8	1219.4	1212.6	1222.8	1221.1
7.5°	1212.6	1209.2	1205.8	1216.0	1214.3
10°	1199.0	1197.3	1195.6	1207.5	1205.8
12.5°	1182.0	1182.0	1180.3	1193.9	1193.9
15°	1159.8	1161.5	1163.2	1178.6	1178.6
17.5°	1139.4	1137.7	1142.8	1159.8	1161.5
20°	1110.4	1113.8	1120.6	1141.1	1142.8
22.5°	1081.5	1084.9	1096.8	1117.2	1122.3
25°	1049.1	1054.2	1067.8	1093.4	1098.5
27.5°	1015.1	1021.9	1040.6	1067.8	1073.0
30°	977.6	987.8	1008.2	1038.9	1044.0
32.5°	940.1	950.3	975.9	1006.5	1013.3
35°	899.2	911.2	940.1	975.9	984.4
37.5°	856.7	872.0	906.1	941.8	952.0
40°	814.1	831.1	868.6	906.1	918.0
42.5°	771.5	788.5	829.4	872.0	883.9
45°	723.8	747.7	791.9	836.2	846.4
47.5°	677.8	703.4	752.8	797.1	810.7
50°	633.6	659.1	711.9	757.9	771.5
52.5°	587.6	614.8	671.0	718.7	730.6
55°	541.6	570.5	630.2	676.1	686.4
57.5°	495.6	526.3	587.6	631.9	643.8
60°	449.6	482.0	541.6	585.9	594.4
62.5°	403.6	437.7	499.0	538.2	546.7
65°	357.7	395.1	456.4	492.2	502.4
67.5°	313.4	350.8	410.4	444.5	453.0
70°	272.5	306.6	366.2	391.7	395.1
72.5°	221.4	264.0	321.9	335.5	327.0
75°	178.8	221.4	270.8	265.7	255.5
77.5°	136.2	178.8	211.2	194.2	180.5
80°	97.1	139.7	146.5	120.9	114.1
82.5°	63.0	97.1	81.7	63.0	51.1
85°	32.4	46.0	25.5	20.4	17.0
87.5°	10.2	6.8	3.4	3.4	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)