

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: P312373

Luminaire Tested: **14FCZ2-35-UNV-L83050-S-CA125-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: P312373
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: 14FCZ2-35-UNV-L83050-S-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS,0.125" ACRYLIC 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: 3595.0 lumens
Efficiency: N/A
Efficacy: 116.3 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

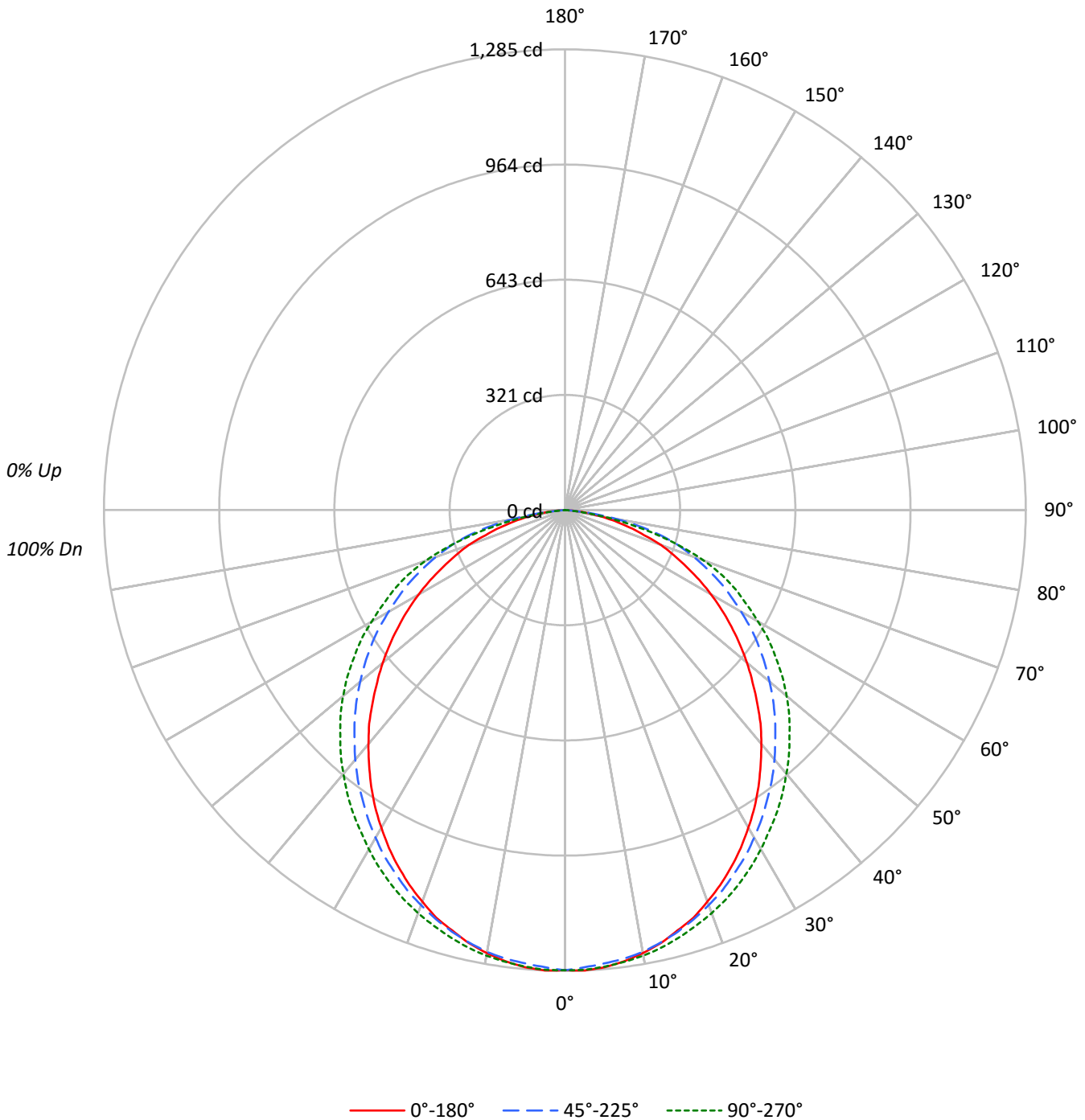
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3454	3454	3454
5°	3457	3428	3452
10°	3429	3419	3448
15°	3382	3392	3436
20°	3328	3359	3425
25°	3260	3318	3414
30°	3179	3279	3395
35°	3092	3232	3384
40°	2993	3193	3375
45°	2883	3154	3371
50°	2776	3119	3380
55°	2659	3094	3370
60°	2533	3050	3348
65°	2383	3042	3348
70°	2244	3015	3253
75°	1946	2947	2780
80°	1574	2376	1850
85°	1047	824	550



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.2	3.4
10°-20°	344.8	9.6
20°-30°	517.3	14.4
30°-40°	617.1	17.2
40°-50°	637.9	17.7
50°-60°	582.4	16.2
60°-70°	458.3	12.7
70°-80°	266.8	7.4
80°-90°	49.2	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°	983.3	27.4
0°-40°	1600.4	44.5
0°-60°	2820.7	78.5
0°-90°	3595.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3595.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1283	1283	1283	1283	1283	
5°	1280	1276	1269	1280	1278	121
15°	1214	1216	1217	1233	1233	343
25°	1098	1103	1118	1144	1150	505
35°	941	954	984	1021	1030	588
45°	758	782	829	875	886	585
55°	567	597	660	708	718	507
65°	374	414	478	515	526	372
75°	187	232	283	278	267	199
85°	34	48	27	21	18	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1283.4	1283.4	1283.4	1283.4	1283.4
2.5°	1285.1	1281.6	1276.2	1285.1	1283.4
5°	1279.8	1276.2	1269.1	1279.8	1278.0
7.5°	1269.1	1265.5	1262.0	1272.7	1270.9
10°	1254.8	1253.1	1251.3	1263.7	1262.0
12.5°	1237.0	1237.0	1235.2	1249.5	1249.5
15°	1213.8	1215.6	1217.4	1233.4	1233.4
17.5°	1192.5	1190.7	1196.0	1213.8	1215.6
20°	1162.1	1165.7	1172.8	1194.2	1196.0
22.5°	1131.8	1135.4	1147.9	1169.3	1174.6
25°	1098.0	1103.3	1117.6	1144.3	1149.7
27.5°	1062.3	1069.5	1089.1	1117.6	1122.9
30°	1023.1	1033.8	1055.2	1087.3	1092.6
32.5°	983.9	994.6	1021.3	1053.4	1060.6
35°	941.1	953.6	983.9	1021.3	1030.2
37.5°	896.6	912.6	948.3	985.7	996.4
40°	852.0	869.8	909.0	948.3	960.7
42.5°	807.4	825.3	868.0	912.6	925.1
45°	757.5	782.5	828.8	875.2	885.9
47.5°	709.4	736.1	787.8	834.2	848.4
50°	663.1	689.8	745.1	793.2	807.4
52.5°	614.9	643.5	702.3	752.2	764.7
55°	566.8	597.1	659.5	707.6	718.3
57.5°	518.7	550.8	614.9	661.3	673.8
60°	470.6	504.4	566.8	613.2	622.1
62.5°	422.4	458.1	522.3	563.3	572.2
65°	374.3	413.5	477.7	515.1	525.8
67.5°	328.0	367.2	429.6	465.2	474.1
70°	285.2	320.8	383.2	410.0	413.5
72.5°	231.7	276.3	336.9	351.1	342.2
75°	187.2	231.7	283.4	278.1	267.4
77.5°	142.6	187.2	221.0	203.2	188.9
80°	101.6	146.2	153.3	126.6	119.4
82.5°	66.0	101.6	85.6	66.0	53.5
85°	33.9	48.1	26.7	21.4	17.8
87.5°	10.7	7.1	3.6	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)