

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: P312218

Luminaire Tested: **14FCZ2-35-UNV-L83050-CA08-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: P312218
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: 14FCZ2-35-UNV-L83050-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" 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: 3571.0 lumens
Efficiency: N/A
Efficacy: 115.6 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

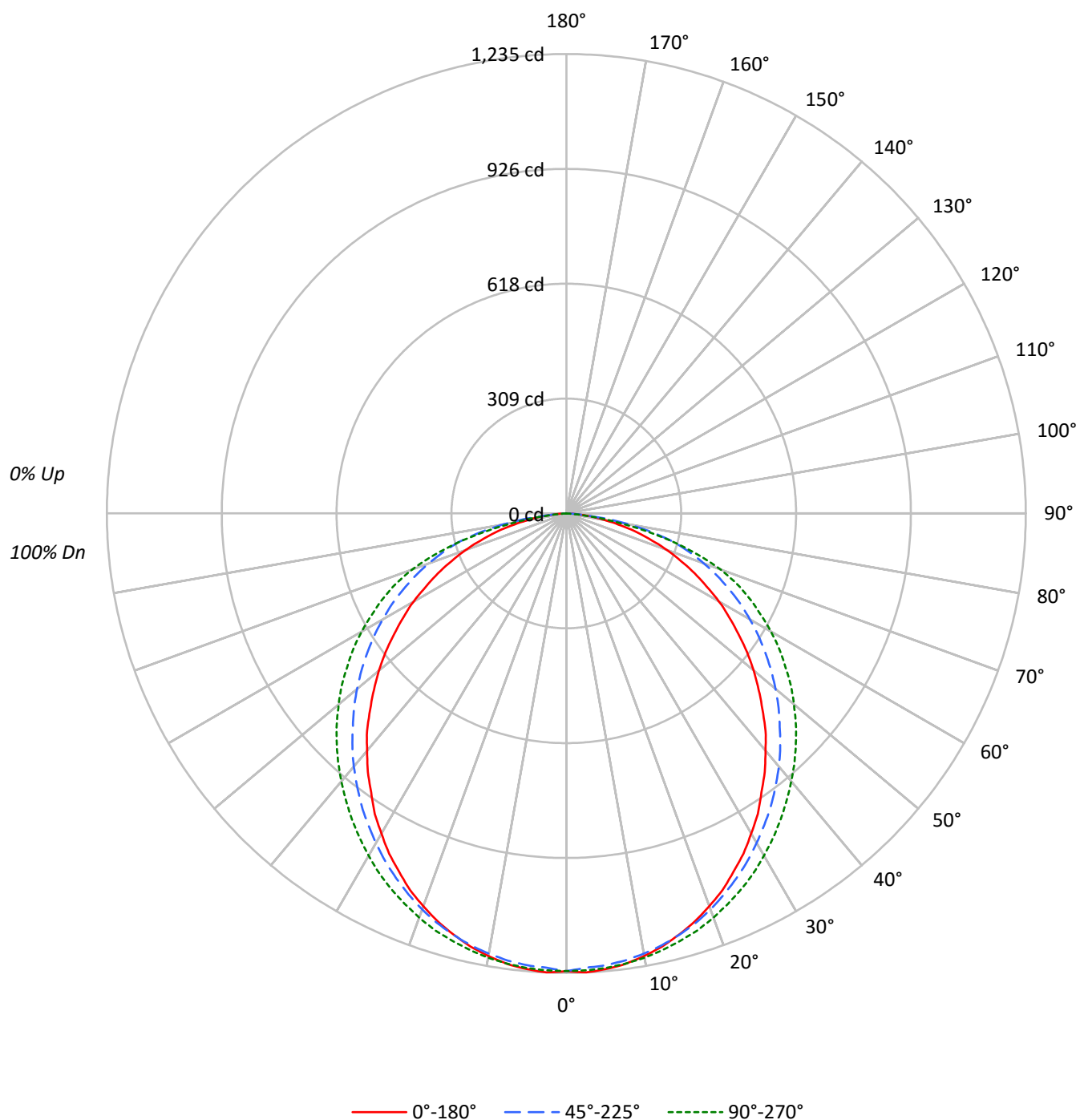
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3310	3310	3310
5°	3321	3293	3312
10°	3301	3283	3314
15°	3265	3268	3312
20°	3217	3245	3311
25°	3156	3213	3308
30°	3088	3179	3301
35°	3006	3152	3299
40°	2926	3121	3303
45°	2836	3088	3321
50°	2753	3074	3343
55°	2648	3063	3373
60°	2554	3068	3420
65°	2423	3077	3473
70°	2274	3101	3471
75°	2062	3130	3138
80°	1691	2703	2233
85°	1254	1278	516



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.4	3.3
10°-20°	332.5	9.3
20°-30°	500.9	14.0
30°-40°	601.1	16.8
40°-50°	626.5	17.5
50°-60°	580.0	16.2
60°-70°	468.6	13.1
70°-80°	285.8	8.0
80°-90°	59.0	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°	949.9	26.6
0°-40°	1551.0	43.4
0°-60°	2757.6	77.2
0°-90°	3571.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3571.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1230	1230	1230	1230	1230	
5°	1229	1226	1219	1228	1226	117
15°	1172	1173	1173	1189	1189	330
25°	1063	1069	1082	1109	1114	490
35°	915	929	960	994	1004	573
45°	745	768	811	857	873	576
55°	564	594	653	704	719	506
65°	381	418	483	532	545	376
75°	198	242	301	306	302	208
85°	41	60	41	23	17	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1230.2	1230.2	1230.2	1230.2	1230.2
2.5°	1235.0	1231.0	1222.3	1231.0	1229.4
5°	1229.4	1226.2	1219.1	1227.8	1226.2
7.5°	1221.5	1218.3	1211.9	1222.3	1220.7
10°	1207.9	1206.3	1201.6	1213.5	1212.7
12.5°	1192.0	1191.2	1188.8	1202.4	1201.6
15°	1172.1	1172.9	1172.9	1188.8	1188.8
17.5°	1149.8	1151.4	1154.6	1172.1	1174.5
20°	1123.5	1126.7	1133.1	1153.0	1156.2
22.5°	1096.4	1098.8	1108.4	1132.3	1135.5
25°	1063.0	1069.4	1082.1	1109.2	1114.0
27.5°	1031.2	1036.7	1054.2	1082.1	1090.1
30°	993.7	1002.5	1023.2	1053.5	1062.2
32.5°	957.9	967.5	991.3	1026.4	1034.3
35°	914.9	929.2	959.5	994.5	1004.1
37.5°	875.9	889.4	923.7	961.9	973.0
40°	832.9	849.6	888.6	929.2	940.4
42.5°	793.1	809.0	851.2	892.6	907.7
45°	745.3	767.6	811.4	856.8	872.7
47.5°	701.5	723.8	774.0	822.5	836.9
50°	657.7	681.6	734.2	784.3	798.6
52.5°	612.3	637.8	694.3	744.5	761.2
55°	564.5	594.0	652.9	703.9	719.0
57.5°	519.2	549.4	612.3	664.1	679.2
60°	474.6	505.6	570.1	619.5	635.4
62.5°	425.2	461.8	528.7	577.3	589.2
65°	380.6	418.0	483.3	531.9	545.4
67.5°	333.6	374.2	439.5	484.1	496.9
70°	289.0	331.2	394.1	435.6	441.1
72.5°	241.3	284.3	348.0	374.2	374.2
75°	198.3	242.1	301.0	305.8	301.8
77.5°	151.3	199.9	238.1	228.5	219.0
80°	109.1	156.9	174.4	156.9	144.1
82.5°	73.3	113.9	105.1	83.6	74.1
85°	40.6	60.5	41.4	23.1	16.7
87.5°	15.1	13.5	4.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)