

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: P312241

Luminaire Tested: **14FCZ2-39-UNV-L83050-CA08-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: P312241
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-CA08-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC 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: 3717.0 lumens
Efficiency: N/A
Efficacy: 111.6 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

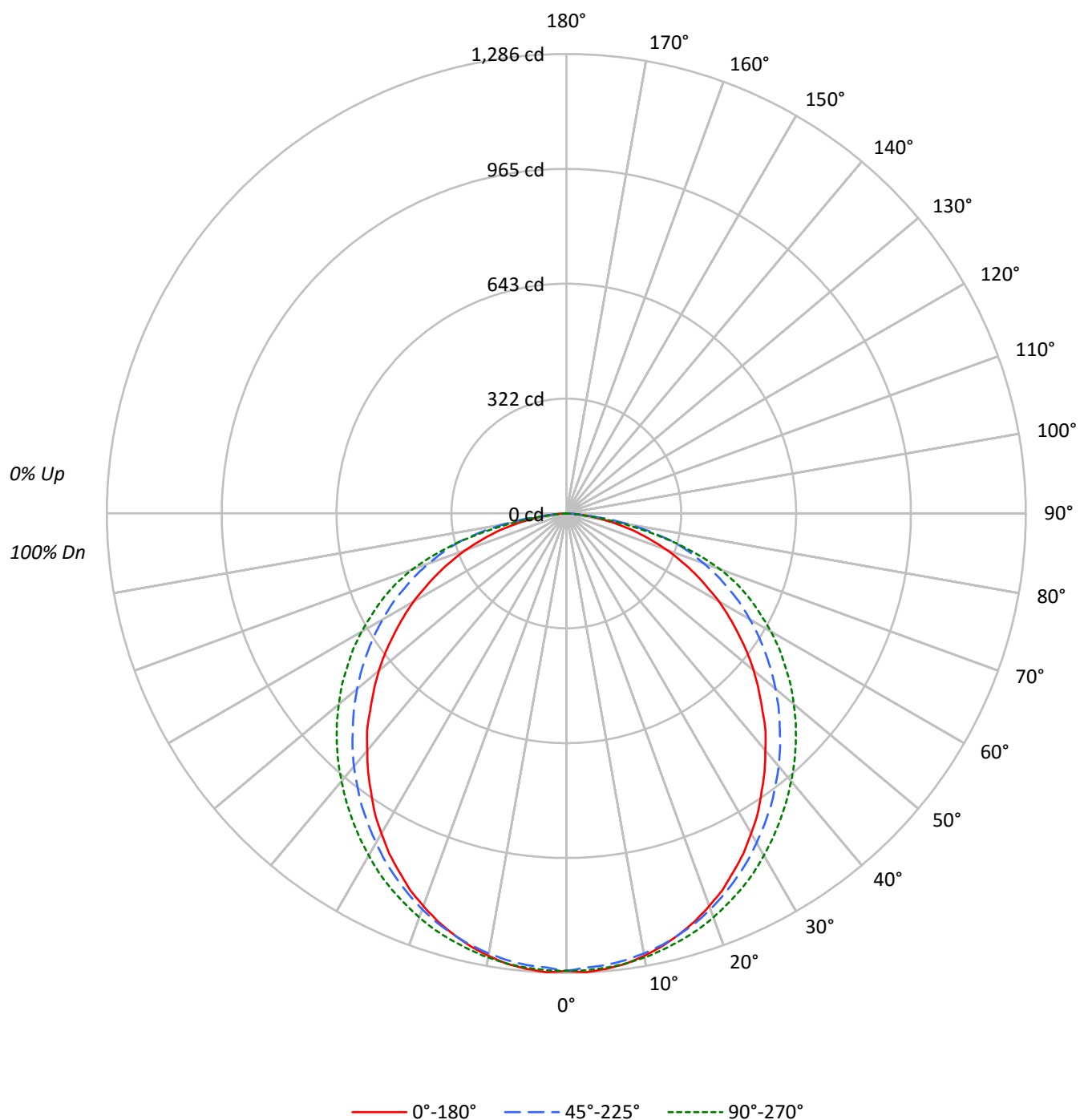
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3446	3446	3446
5°	3457	3428	3448
10°	3436	3418	3449
15°	3399	3401	3447
20°	3349	3377	3446
25°	3285	3344	3443
30°	3214	3309	3435
35°	3128	3281	3433
40°	3045	3249	3438
45°	2952	3214	3457
50°	2866	3199	3480
55°	2757	3188	3511
60°	2659	3194	3560
65°	2523	3203	3615
70°	2367	3228	3613
75°	2146	3257	3266
80°	1759	2813	2325
85°	1306	1331	537



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.2	3.3
10°-20°	346.1	9.3
20°-30°	521.4	14.0
30°-40°	625.7	16.8
40°-50°	652.2	17.5
50°-60°	603.8	16.2
60°-70°	487.8	13.1
70°-80°	297.4	8.0
80°-90°	61.4	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°	988.7	26.6
0°-40°	1614.4	43.4
0°-60°	2870.4	77.2
0°-90°	3717.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3717.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1280	1280	1280	1280	1280	
5°	1280	1276	1269	1278	1276	121
15°	1220	1221	1221	1237	1237	344
25°	1106	1113	1126	1154	1160	510
35°	952	967	999	1035	1045	597
45°	776	799	845	892	908	600
55°	588	618	680	733	748	526
65°	396	435	503	554	568	392
75°	206	252	313	318	314	217
85°	42	63	43	24	17	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1280.5	1280.5	1280.5	1280.5	1280.5
2.5°	1285.5	1281.3	1272.2	1281.3	1279.7
5°	1279.7	1276.4	1268.9	1278.0	1276.4
7.5°	1271.4	1268.1	1261.5	1272.2	1270.6
10°	1257.3	1255.7	1250.7	1263.1	1262.3
12.5°	1240.7	1239.9	1237.4	1251.5	1250.7
15°	1220.0	1220.8	1220.8	1237.4	1237.4
17.5°	1196.8	1198.5	1201.8	1220.0	1222.5
20°	1169.5	1172.8	1179.4	1200.1	1203.4
22.5°	1141.3	1143.8	1153.7	1178.6	1181.9
25°	1106.5	1113.1	1126.4	1154.5	1159.5
27.5°	1073.3	1079.1	1097.4	1126.4	1134.6
30°	1034.4	1043.5	1065.0	1096.5	1105.6
32.5°	997.1	1007.0	1031.9	1068.3	1076.6
35°	952.3	967.2	998.7	1035.2	1045.1
37.5°	911.7	925.8	961.4	1001.2	1012.8
40°	866.9	884.3	925.0	967.2	978.8
42.5°	825.5	842.1	886.0	929.1	944.8
45°	775.8	799.0	844.6	891.8	908.4
47.5°	730.2	753.4	805.6	856.2	871.1
50°	684.6	709.5	764.2	816.4	831.3
52.5°	637.4	663.9	722.7	774.9	792.3
55°	587.6	618.3	679.6	732.7	748.4
57.5°	540.4	571.9	637.4	691.2	707.0
60°	494.0	526.3	593.4	644.8	661.4
62.5°	442.6	480.7	550.3	600.9	613.3
65°	396.2	435.1	503.1	553.6	567.7
67.5°	347.3	389.5	457.5	503.9	517.2
70°	300.9	344.8	410.3	453.4	459.2
72.5°	251.1	295.9	362.2	389.5	389.5
75°	206.4	252.0	313.3	318.3	314.1
77.5°	157.5	208.0	247.8	237.9	227.9
80°	113.5	163.3	181.5	163.3	150.0
82.5°	76.3	118.5	109.4	87.0	77.1
85°	42.3	63.0	43.1	24.0	17.4
87.5°	15.7	14.1	4.1	4.1	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)