

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: P307702

Luminaire Tested: **14FCZ2-39-UNV-L82765-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: P307702
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-L82765-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: 3631.0 lumens
Efficiency: N/A
Efficacy: 108.4 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

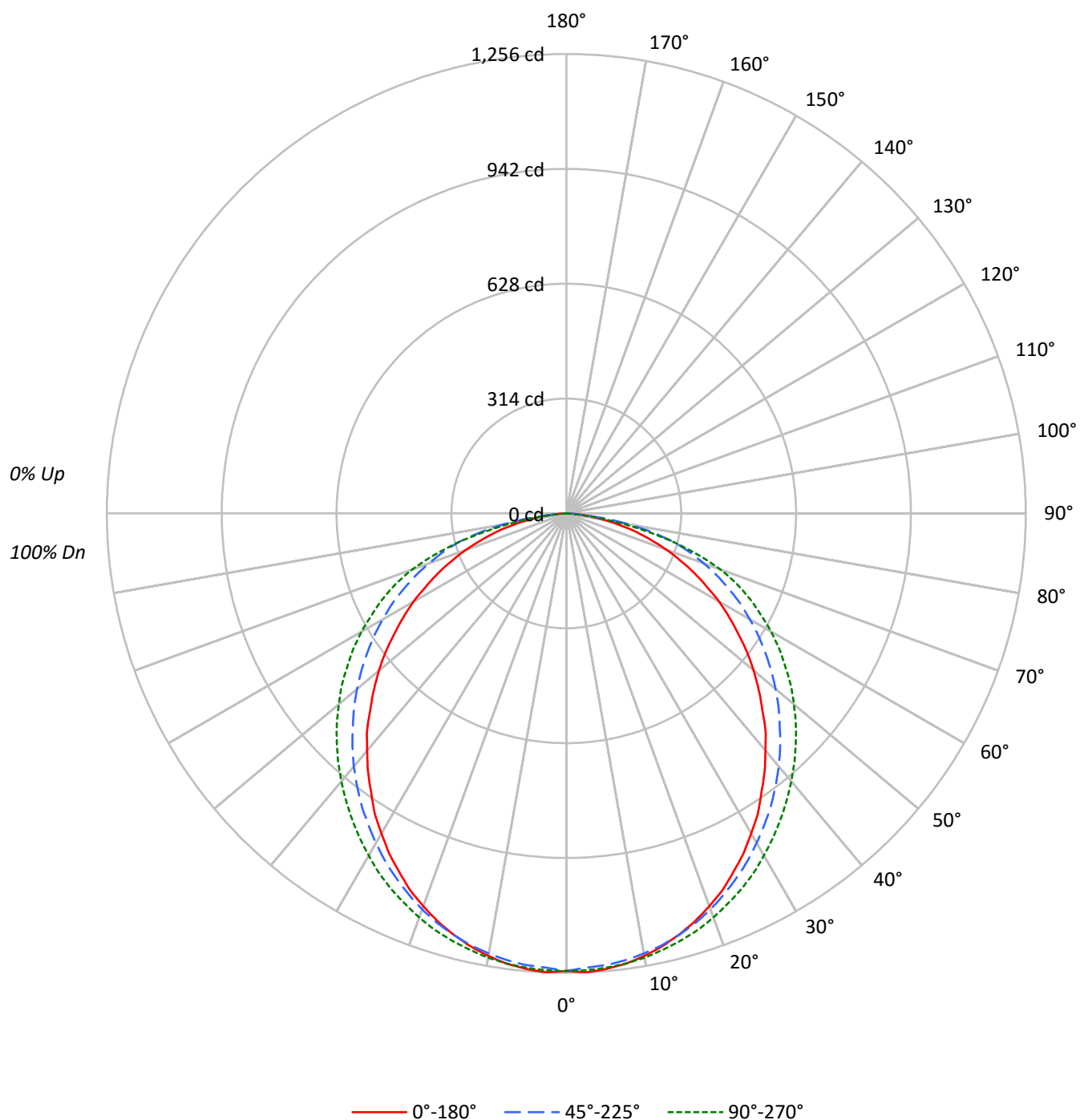
Input Watts (W): 33.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3366	3366	3366
5°	3377	3348	3368
10°	3356	3338	3369
15°	3320	3322	3368
20°	3271	3299	3367
25°	3209	3267	3363
30°	3140	3233	3356
35°	3056	3205	3354
40°	2975	3174	3359
45°	2884	3140	3377
50°	2800	3125	3400
55°	2693	3115	3430
60°	2597	3120	3477
65°	2464	3130	3531
70°	2312	3153	3529
75°	2096	3182	3191
80°	1719	2748	2270
85°	1275	1300	525



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.4	3.3
10°-20°	338.1	9.3
20°-30°	509.4	14.0
30°-40°	611.2	16.8
40°-50°	637.1	17.5
50°-60°	589.8	16.2
60°-70°	476.5	13.1
70°-80°	290.5	8.0
80°-90°	60.0	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°	965.8	26.6
0°-40°	1577.1	43.4
0°-60°	2803.9	77.2
0°-90°	3631.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3631.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1251	1251	1251	1251	1251	
5°	1250	1247	1240	1248	1247	119
15°	1192	1193	1193	1209	1209	336
25°	1081	1087	1100	1128	1133	498
35°	930	945	976	1011	1021	583
45°	758	780	825	871	887	586
55°	574	604	664	716	731	514
65°	387	425	492	541	555	383
75°	202	246	306	311	307	212
85°	41	62	42	24	17	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1250.9	1250.9	1250.9	1250.9	1250.9
2.5°	1255.7	1251.7	1242.8	1251.7	1250.1
5°	1250.1	1246.8	1239.6	1248.5	1246.8
7.5°	1242.0	1238.7	1232.3	1242.8	1241.2
10°	1228.2	1226.6	1221.7	1233.9	1233.1
12.5°	1212.0	1211.2	1208.8	1222.6	1221.7
15°	1191.8	1192.6	1192.6	1208.8	1208.8
17.5°	1169.1	1170.7	1174.0	1191.8	1194.2
20°	1142.4	1145.6	1152.1	1172.4	1175.6
22.5°	1114.9	1117.3	1127.0	1151.3	1154.5
25°	1080.9	1087.3	1100.3	1127.8	1132.7
27.5°	1048.5	1054.1	1072.0	1100.3	1108.4
30°	1010.4	1019.3	1040.4	1071.2	1080.1
32.5°	974.0	983.7	1008.0	1043.6	1051.7
35°	930.3	944.8	975.6	1011.2	1021.0
37.5°	890.6	904.4	939.2	978.0	989.4
40°	846.9	863.9	903.6	944.8	956.2
42.5°	806.4	822.6	865.5	907.6	923.0
45°	757.8	780.5	825.0	871.2	887.4
47.5°	713.3	736.0	787.0	836.4	850.9
50°	668.8	693.1	746.5	797.5	812.1
52.5°	622.6	648.5	706.0	757.0	774.0
55°	574.0	604.0	663.9	715.7	731.1
57.5°	527.9	558.7	622.6	675.2	690.6
60°	482.5	514.1	579.7	629.9	646.1
62.5°	432.3	469.6	537.6	587.0	599.1
65°	387.0	425.1	491.5	540.8	554.6
67.5°	339.2	380.5	446.9	492.3	505.2
70°	293.9	336.8	400.8	442.9	448.5
72.5°	245.3	289.0	353.8	380.5	380.5
75°	201.6	246.1	306.0	310.9	306.9
77.5°	153.8	203.2	242.1	232.4	222.7
80°	110.9	159.5	177.3	159.5	146.5
82.5°	74.5	115.8	106.9	85.0	75.3
85°	41.3	61.5	42.1	23.5	17.0
87.5°	15.4	13.8	4.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)