

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: P308007

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CP250-W2A-U-3000K**

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: P308007
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-CP250-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET
Light Source: (168) 3000K 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: 3291.0 lumens
Efficiency: N/A
Efficacy: 99.4 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

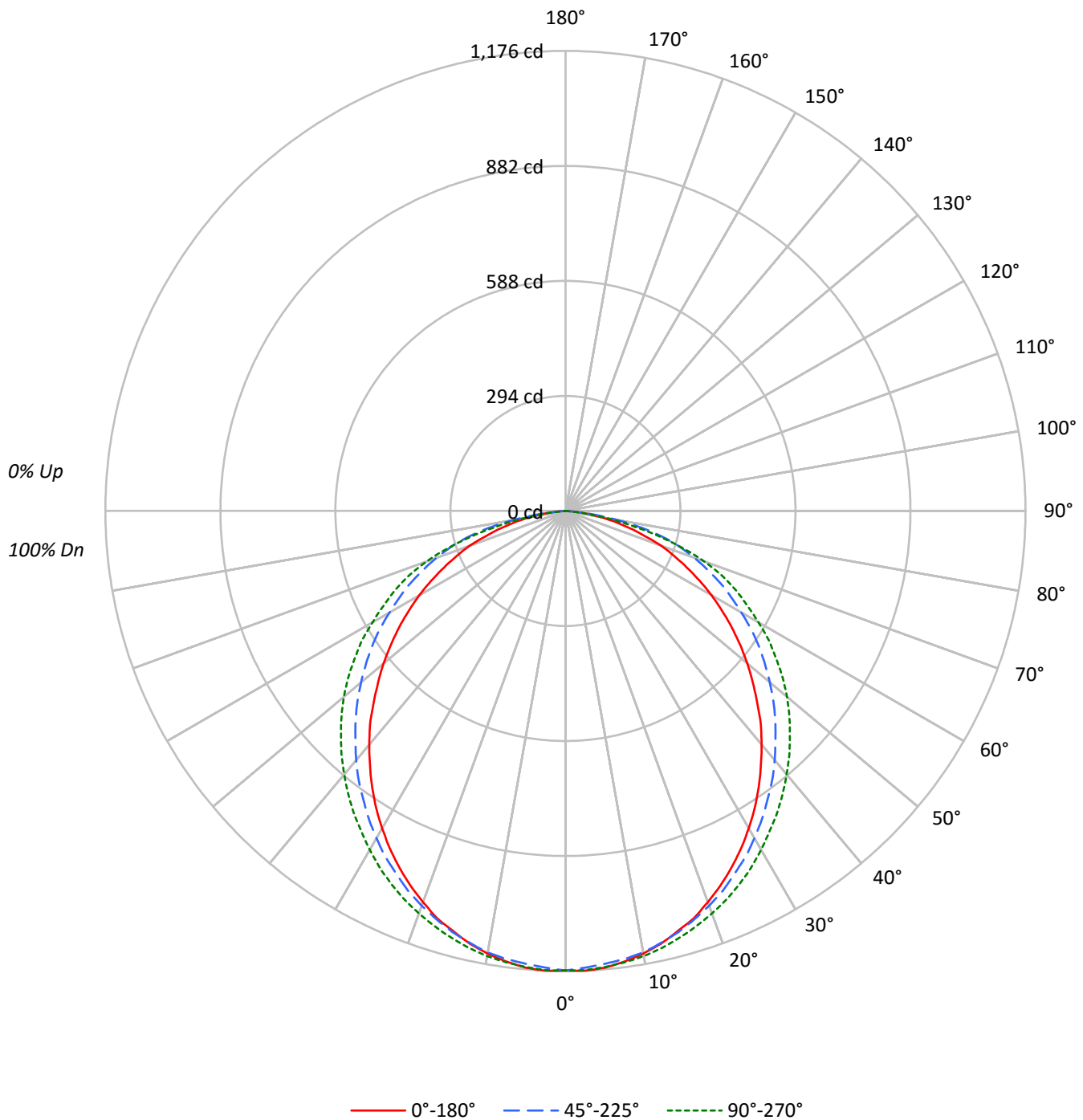
Input Watts (W): 33.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3161	3161	3161
5°	3165	3138	3160
10°	3139	3130	3157
15°	3096	3105	3146
20°	3047	3075	3135
25°	2984	3038	3125
30°	2910	3002	3108
35°	2830	2959	3098
40°	2740	2923	3090
45°	2639	2887	3086
50°	2541	2856	3095
55°	2434	2832	3085
60°	2319	2793	3065
65°	2182	2784	3065
70°	2054	2760	2979
75°	1781	2697	2545
80°	1441	2174	1694
85°	957	756	503



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.9	3.4
10°-20°	315.7	9.6
20°-30°	473.5	14.4
30°-40°	564.9	17.2
40°-50°	584.0	17.7
50°-60°	533.2	16.2
60°-70°	419.6	12.7
70°-80°	244.2	7.4
80°-90°	45.0	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°	900.2	27.4
0°-40°	1465.0	44.5
0°-60°	2582.2	78.5
0°-90°	3291.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3291.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1175	1175	1175	1175	1175	
5°	1172	1168	1162	1172	1170	111
15°	1111	1113	1114	1129	1129	314
25°	1005	1010	1023	1048	1052	463
35°	862	873	901	935	943	539
45°	694	716	759	801	811	536
55°	519	547	604	648	658	464
65°	343	379	437	472	481	340
75°	171	212	259	254	245	182
85°	31	44	24	20	16	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1174.8	1174.8	1174.8	1174.8	1174.8
2.5°	1176.5	1173.2	1168.3	1176.5	1174.8
5°	1171.6	1168.3	1161.8	1171.6	1169.9
7.5°	1161.8	1158.5	1155.3	1165.0	1163.4
10°	1148.7	1147.1	1145.5	1156.9	1155.3
12.5°	1132.4	1132.4	1130.8	1143.8	1143.8
15°	1111.2	1112.8	1114.5	1129.1	1129.1
17.5°	1091.6	1090.0	1094.9	1111.2	1112.8
20°	1063.9	1067.1	1073.7	1093.2	1094.9
22.5°	1036.1	1039.4	1050.8	1070.4	1075.3
25°	1005.1	1010.0	1023.1	1047.6	1052.5
27.5°	972.5	979.0	997.0	1023.1	1028.0
30°	936.6	946.4	966.0	995.3	1000.2
32.5°	900.7	910.5	935.0	964.3	970.9
35°	861.5	873.0	900.7	935.0	943.1
37.5°	820.8	835.4	868.1	902.3	912.1
40°	780.0	796.3	832.2	868.1	879.5
42.5°	739.2	755.5	794.6	835.4	846.9
45°	693.5	716.3	758.7	801.2	811.0
47.5°	649.4	673.9	721.2	763.6	776.7
50°	607.0	631.5	682.1	726.1	739.2
52.5°	562.9	589.0	642.9	688.6	700.0
55°	518.9	546.6	603.7	647.8	657.6
57.5°	474.8	504.2	562.9	605.4	616.8
60°	430.8	461.8	518.9	561.3	569.5
62.5°	386.7	419.3	478.1	515.6	523.8
65°	342.7	378.6	437.3	471.6	481.4
67.5°	300.2	336.1	393.2	425.9	434.0
70°	261.1	293.7	350.8	375.3	378.6
72.5°	212.1	252.9	308.4	321.4	313.3
75°	171.3	212.1	259.4	254.5	244.8
77.5°	130.5	171.3	202.3	186.0	173.0
80°	93.0	133.8	140.3	115.9	109.3
82.5°	60.4	93.0	78.3	60.4	49.0
85°	31.0	44.1	24.5	19.6	16.3
87.5°	9.8	6.5	3.3	3.3	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)