

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: P308014

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CP250-W2A-U-6500K**

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: P308014
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-6500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET
Light Source: (168) 6500K 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: 3644.0 lumens
Efficiency: N/A
Efficacy: 104.7 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

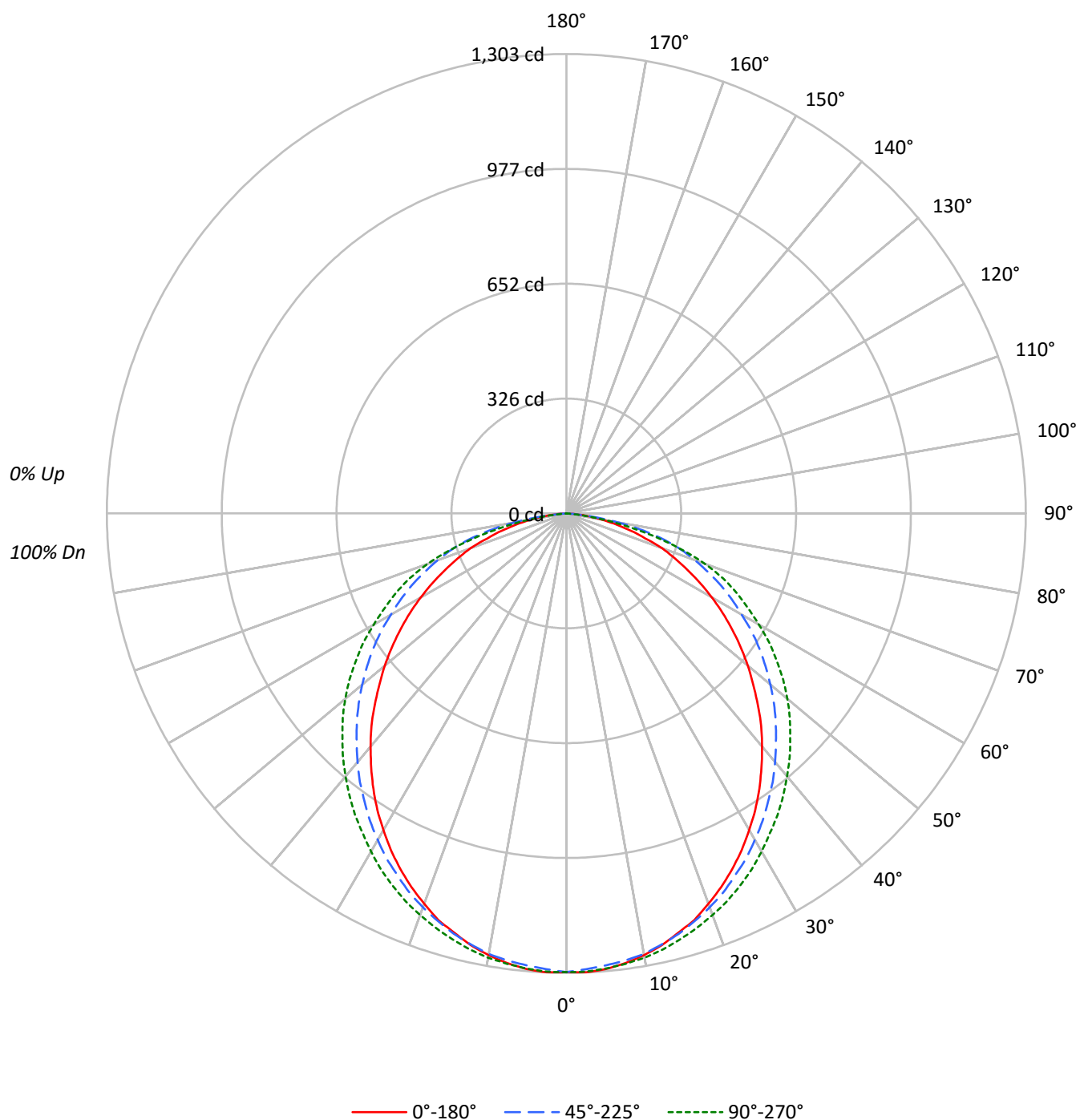
Input Watts (W): 34.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3500	3500	3500
5°	3504	3475	3499
10°	3475	3466	3495
15°	3428	3438	3483
20°	3373	3404	3472
25°	3304	3363	3460
30°	3223	3324	3441
35°	3134	3276	3431
40°	3034	3237	3421
45°	2922	3197	3417
50°	2814	3162	3426
55°	2695	3136	3416
60°	2567	3092	3393
65°	2416	3083	3394
70°	2275	3056	3298
75°	1972	2987	2818
80°	1596	2408	1877
85°	1059	837	559



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.8	3.4
10°-20°	349.5	9.6
20°-30°	524.3	14.4
30°-40°	625.5	17.2
40°-50°	646.6	17.7
50°-60°	590.4	16.2
60°-70°	464.6	12.7
70°-80°	270.4	7.4
80°-90°	49.8	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°	996.7	27.4
0°-40°	1622.2	44.5
0°-60°	2859.1	78.5
0°-90°	3644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3644.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1301	1301	1301	1301	1301	
5°	1297	1294	1286	1297	1295	123
15°	1230	1232	1234	1250	1250	347
25°	1113	1118	1133	1160	1165	512
35°	954	967	997	1035	1044	596
45°	768	793	840	887	898	593
55°	574	605	668	717	728	514
65°	379	419	484	522	533	377
75°	190	235	287	282	271	202
85°	34	49	27	22	18	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1300.8	1300.8	1300.8	1300.8	1300.8
2.5°	1302.7	1299.0	1293.6	1302.7	1300.8
5°	1297.2	1293.6	1286.4	1297.2	1295.4
7.5°	1286.4	1282.8	1279.2	1290.0	1288.2
10°	1271.9	1270.1	1268.3	1281.0	1279.2
12.5°	1253.9	1253.9	1252.1	1266.5	1266.5
15°	1230.4	1232.2	1234.0	1250.3	1250.3
17.5°	1208.7	1206.9	1212.3	1230.4	1232.2
20°	1178.0	1181.6	1188.8	1210.5	1212.3
22.5°	1147.3	1150.9	1163.5	1185.2	1190.6
25°	1112.9	1118.4	1132.8	1159.9	1165.3
27.5°	1076.8	1084.0	1103.9	1132.8	1138.2
30°	1037.1	1047.9	1069.6	1102.1	1107.5
32.5°	997.3	1008.2	1035.3	1067.8	1075.0
35°	954.0	966.6	997.3	1035.3	1044.3
37.5°	908.8	925.0	961.2	999.1	1010.0
40°	863.6	881.7	921.4	961.2	973.8
42.5°	818.4	836.5	879.9	925.0	937.7
45°	767.9	793.2	840.1	887.1	897.9
47.5°	719.1	746.2	798.6	845.6	860.0
50°	672.1	699.2	755.2	804.0	818.4
52.5°	623.3	652.2	711.9	762.4	775.1
55°	574.5	605.3	668.5	717.3	728.1
57.5°	525.8	558.3	623.3	670.3	682.9
60°	477.0	511.3	574.5	621.5	630.5
62.5°	428.2	464.3	529.4	570.9	580.0
65°	379.4	419.2	484.2	522.1	533.0
67.5°	332.4	372.2	435.4	471.6	480.6
70°	289.1	325.2	388.4	415.5	419.2
72.5°	234.9	280.0	341.5	355.9	346.9
75°	189.7	234.9	287.3	281.9	271.0
77.5°	144.5	189.7	224.0	206.0	191.5
80°	103.0	148.2	155.4	128.3	121.1
82.5°	66.8	103.0	86.7	66.8	54.2
85°	34.3	48.8	27.1	21.7	18.1
87.5°	10.8	7.2	3.6	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)