

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: P312252

Luminaire Tested: **14FCZ2-39-UNV-L83050-CP125-W2A-U-4000K**

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: P312252
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-CP125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4000K 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: 3814.0 lumens
Efficiency: N/A
Efficacy: 111.8 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

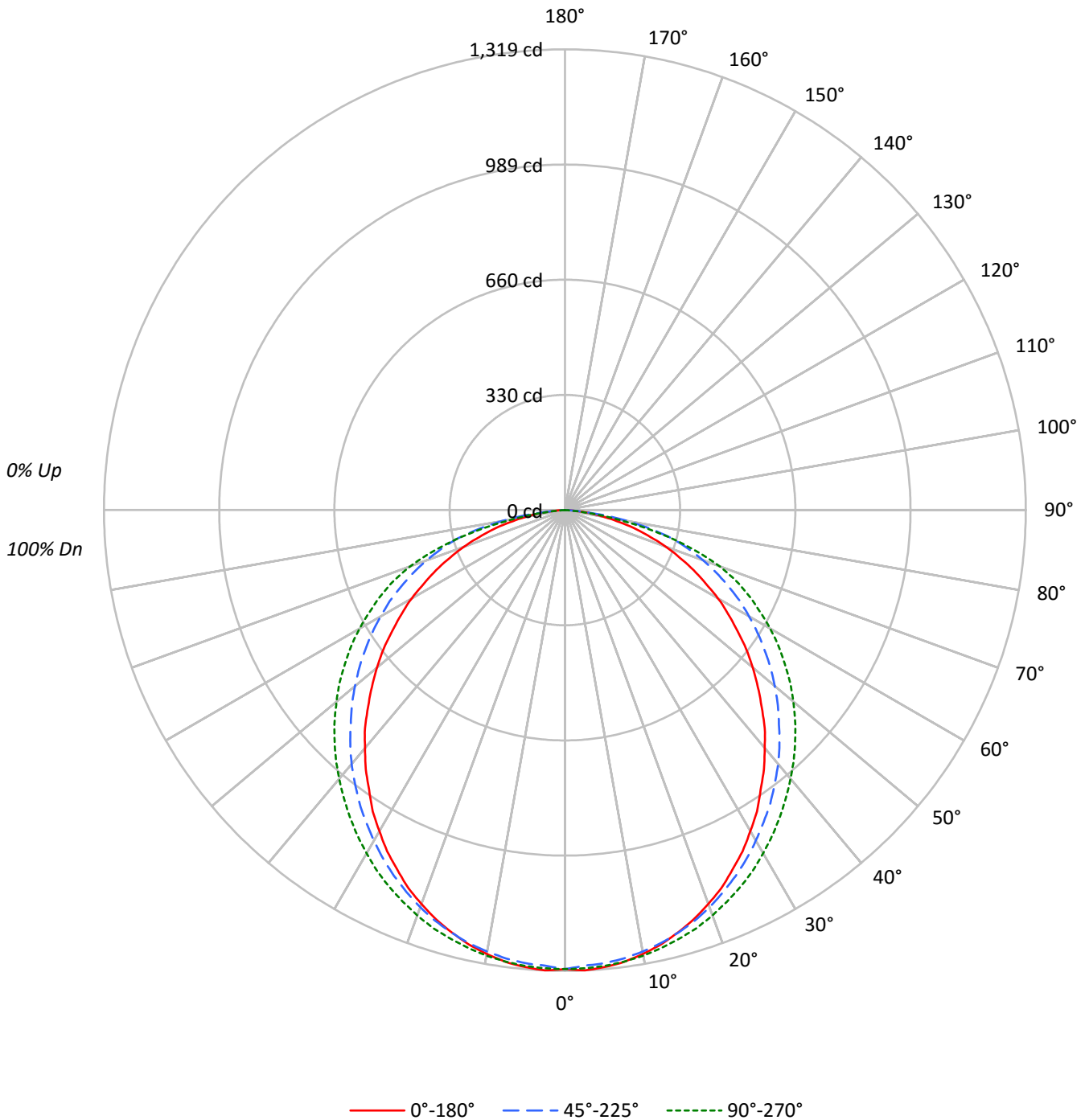
Input Watts (W): 34.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3536	3536	3536
5°	3547	3517	3538
10°	3525	3507	3539
15°	3488	3490	3537
20°	3436	3466	3536
25°	3371	3432	3533
30°	3298	3396	3525
35°	3210	3367	3523
40°	3125	3334	3528
45°	3029	3298	3547
50°	2941	3283	3571
55°	2829	3272	3603
60°	2728	3277	3653
65°	2588	3287	3710
70°	2429	3312	3707
75°	2202	3343	3351
80°	1805	2885	2385
85°	1340	1365	553



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.3	3.3
10°-20°	355.2	9.3
20°-30°	535.0	14.0
30°-40°	642.0	16.8
40°-50°	669.2	17.5
50°-60°	619.5	16.2
60°-70°	500.5	13.1
70°-80°	305.2	8.0
80°-90°	63.0	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°	1014.5	26.6
0°-40°	1656.6	43.4
0°-60°	2945.3	77.2
0°-90°	3814.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3814.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1314	1314	1314	1314	1314	
5°	1313	1310	1302	1311	1310	125
15°	1252	1253	1253	1270	1270	353
25°	1135	1142	1156	1185	1190	523
35°	977	992	1025	1062	1072	612
45°	796	820	867	915	932	615
55°	603	634	697	752	768	540
65°	406	446	516	568	583	402
75°	212	258	322	327	322	222
85°	43	65	44	25	18	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1313.9	1313.9	1313.9	1313.9	1313.9
2.5°	1319.0	1314.8	1305.4	1314.8	1313.1
5°	1313.1	1309.7	1302.0	1311.4	1309.7
7.5°	1304.6	1301.2	1294.4	1305.4	1303.7
10°	1290.1	1288.4	1283.3	1296.1	1295.2
12.5°	1273.1	1272.3	1269.7	1284.2	1283.3
15°	1251.9	1252.7	1252.7	1269.7	1269.7
17.5°	1228.0	1229.7	1233.1	1251.9	1254.4
20°	1200.0	1203.4	1210.2	1231.4	1234.8
22.5°	1171.1	1173.6	1183.8	1209.3	1212.7
25°	1135.3	1142.1	1155.8	1184.7	1189.8
27.5°	1101.3	1107.3	1126.0	1155.8	1164.3
30°	1061.4	1070.7	1092.8	1125.1	1134.5
32.5°	1023.1	1033.3	1058.8	1096.2	1104.7
35°	977.2	992.5	1024.8	1062.2	1072.4
37.5°	935.5	949.9	986.5	1027.3	1039.2
40°	889.6	907.4	949.1	992.5	1004.4
42.5°	847.0	864.1	909.1	953.3	969.5
45°	796.0	819.8	866.6	915.1	932.1
47.5°	749.2	773.1	826.6	878.5	893.8
50°	702.5	728.0	784.1	837.7	853.0
52.5°	654.0	681.2	741.6	795.2	813.0
55°	603.0	634.4	697.4	751.8	768.0
57.5°	554.5	586.8	654.0	709.3	725.4
60°	506.9	540.0	608.9	661.6	678.7
62.5°	454.1	493.3	564.7	616.6	629.3
65°	406.5	446.5	516.2	568.1	582.6
67.5°	356.3	399.7	469.4	517.1	530.7
70°	308.7	353.8	421.0	465.2	471.1
72.5°	257.7	303.6	371.6	399.7	399.7
75°	211.8	258.5	321.5	326.6	322.3
77.5°	161.6	213.5	254.3	244.1	233.9
80°	116.5	167.5	186.2	167.5	153.9
82.5°	78.2	121.6	112.3	89.3	79.1
85°	43.4	64.6	44.2	24.7	17.9
87.5°	16.2	14.5	4.3	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)