

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: P308002

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CP187-W2A-U-5000K**

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: P308002
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-CP187-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5000K 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: 3620.0 lumens
Efficiency: N/A
Efficacy: 106.2 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

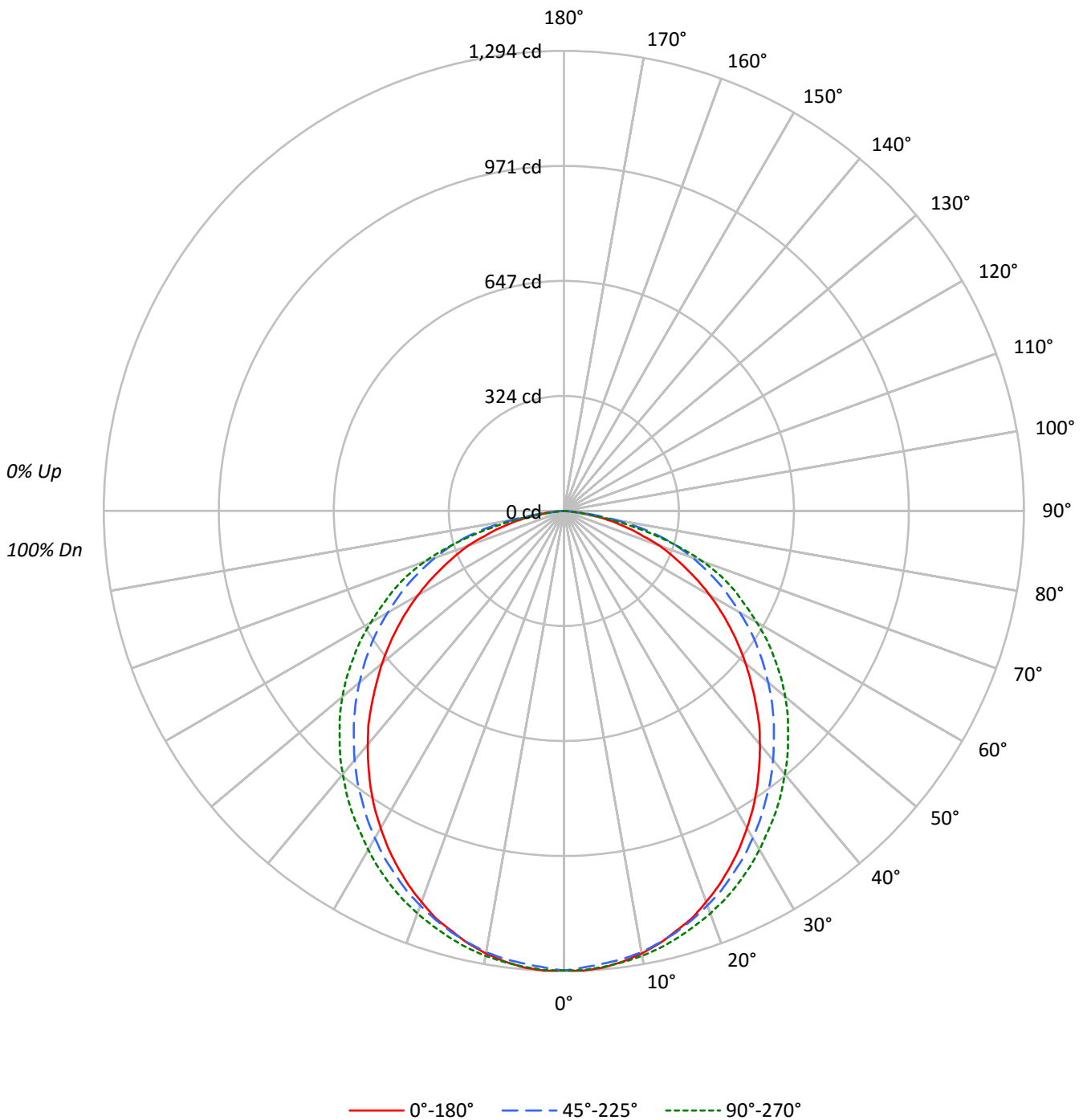
Input Watts (W): 34.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3478	3478	3478
5°	3481	3452	3476
10°	3453	3443	3472
15°	3405	3415	3460
20°	3351	3382	3449
25°	3283	3342	3437
30°	3201	3301	3419
35°	3113	3255	3408
40°	3014	3216	3398
45°	2903	3176	3395
50°	2795	3141	3404
55°	2678	3116	3393
60°	2550	3072	3371
65°	2400	3063	3372
70°	2260	3036	3276
75°	1960	2967	2799
80°	1585	2393	1864
85°	1053	831	553



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.0	3.4
10°-20°	347.2	9.6
20°-30°	520.9	14.4
30°-40°	621.3	17.2
40°-50°	642.4	17.7
50°-60°	586.5	16.2
60°-70°	461.5	12.7
70°-80°	268.7	7.4
80°-90°	49.5	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°	990.1	27.4
0°-40°	1611.5	44.5
0°-60°	2840.3	78.5
0°-90°	3620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3620.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1292	1292	1292	1292	1292	
5°	1289	1285	1278	1289	1287	122
15°	1222	1224	1226	1242	1242	345
25°	1106	1111	1125	1152	1158	509
35°	948	960	991	1028	1037	592
45°	763	788	835	881	892	589
55°	571	601	664	712	723	510
65°	377	416	481	519	530	374
75°	188	233	285	280	269	200
85°	34	48	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°	1292.3	1292.3	1292.3	1292.3	1292.3
2.5°	1294.1	1290.5	1285.1	1294.1	1292.3
5°	1288.7	1285.1	1277.9	1288.7	1286.9
7.5°	1277.9	1274.3	1270.7	1281.5	1279.7
10°	1263.6	1261.8	1260.0	1272.5	1270.7
12.5°	1245.6	1245.6	1243.8	1258.2	1258.2
15°	1222.3	1224.1	1225.9	1242.0	1242.0
17.5°	1200.7	1198.9	1204.3	1222.3	1224.1
20°	1170.2	1173.8	1181.0	1202.5	1204.3
22.5°	1139.7	1143.3	1155.9	1177.4	1182.8
25°	1105.6	1111.0	1125.4	1152.3	1157.7
27.5°	1069.7	1076.9	1096.6	1125.4	1130.7
30°	1030.2	1041.0	1062.5	1094.8	1100.2
32.5°	990.7	1001.5	1028.4	1060.7	1067.9
35°	947.7	960.2	990.7	1028.4	1037.4
37.5°	902.8	919.0	954.9	992.5	1003.3
40°	857.9	875.9	915.4	954.9	967.4
42.5°	813.1	831.0	874.1	919.0	931.5
45°	762.8	787.9	834.6	881.3	892.0
47.5°	714.3	741.3	793.3	840.0	854.3
50°	667.7	694.6	750.2	798.7	813.1
52.5°	619.2	647.9	707.2	757.4	770.0
55°	570.8	601.3	664.1	712.5	723.3
57.5°	522.3	554.6	619.2	665.9	678.4
60°	473.8	507.9	570.8	617.4	626.4
62.5°	425.4	461.3	525.9	567.2	576.1
65°	376.9	416.4	481.0	518.7	529.5
67.5°	330.2	369.7	432.6	468.5	477.4
70°	287.2	323.1	385.9	412.8	416.4
72.5°	233.3	278.2	339.2	353.6	344.6
75°	188.5	233.3	285.4	280.0	269.2
77.5°	143.6	188.5	222.6	204.6	190.3
80°	102.3	147.2	154.4	127.4	120.3
82.5°	66.4	102.3	86.2	66.4	53.8
85°	34.1	48.5	26.9	21.5	17.9
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)