

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: P310732

Luminaire Tested: **24FCZ2-40-UNV-L82765-CA125-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: P310732
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-40-UNV-L82765-CA125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC 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: 3855.0 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

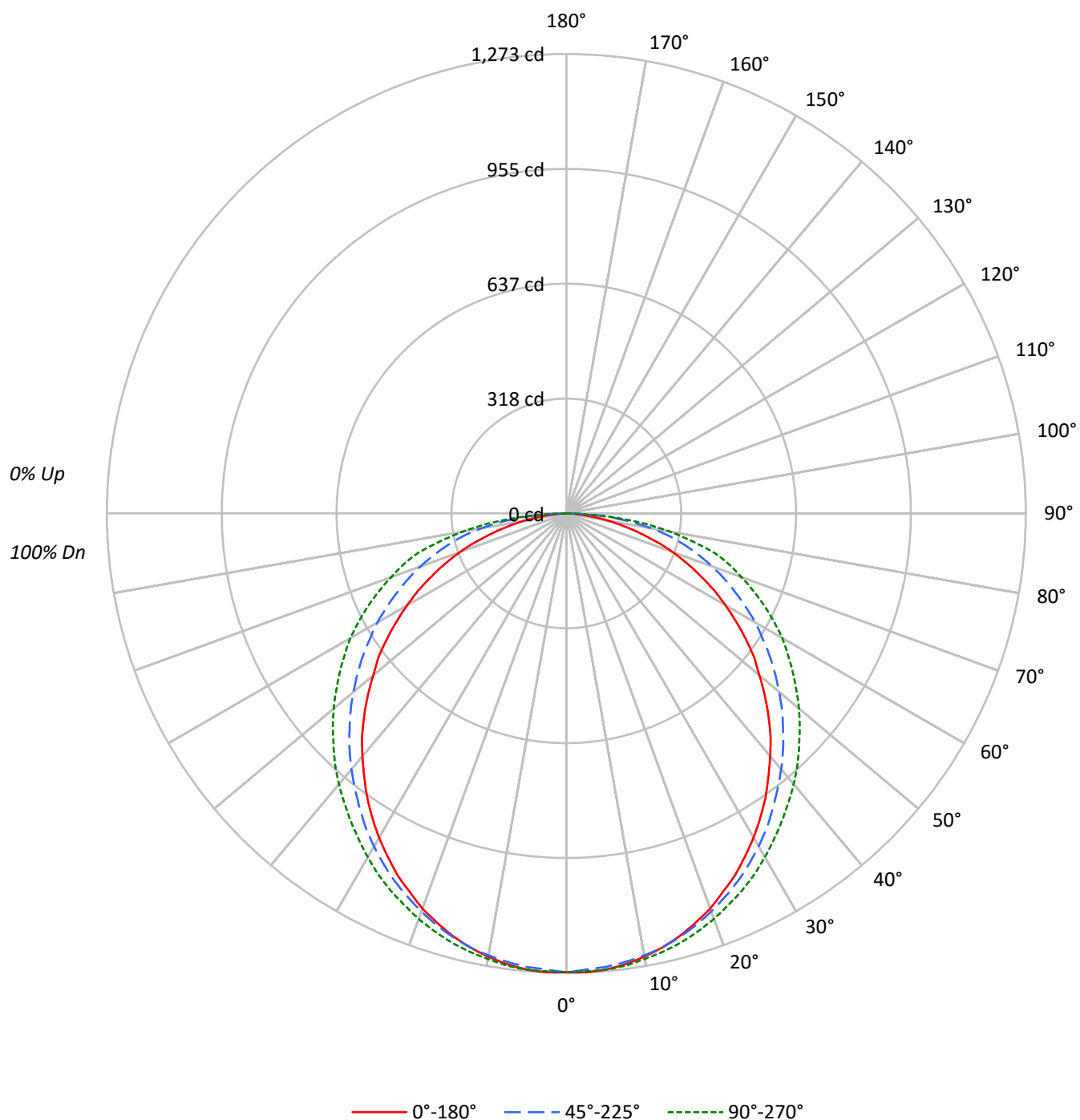
Input Watts (W): 34.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1711	1711	1711
5°	1714	1703	1714
10°	1704	1699	1712
15°	1689	1693	1714
20°	1668	1681	1712
25°	1643	1669	1711
30°	1612	1655	1709
35°	1580	1639	1710
40°	1543	1626	1721
45°	1506	1616	1735
50°	1462	1612	1762
55°	1425	1614	1797
60°	1370	1628	1859
65°	1307	1645	1926
70°	1238	1696	2033
75°	1104	1769	2221
80°	941	1873	2269
85°	672	1856	2172



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.3	3.1
10°-20°	344.0	8.9
20°-30°	519.6	13.5
30°-40°	626.3	16.2
40°-50°	657.5	17.1
50°-60°	615.1	16.0
60°-70°	508.0	13.2
70°-80°	346.1	9.0
80°-90°	118.0	3.1
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°	984.0	25.5
0°-40°	1610.3	41.8
0°-60°	2882.8	74.8
0°-90°	3855.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3855.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1271	1271	1271	1271	1271	
5°	1269	1268	1261	1269	1269	120
15°	1212	1214	1215	1228	1230	342
25°	1106	1112	1124	1146	1152	509
35°	962	972	998	1031	1041	601
45°	792	808	849	895	912	611
55°	608	632	688	744	766	542
65°	411	445	517	582	605	407
75°	212	261	340	404	427	226
85°	44	86	120	136	141	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1271.3	1271.3	1271.3	1271.3	1271.3
2.5°	1272.6	1271.3	1265.0	1271.3	1270.1
5°	1268.8	1267.5	1261.1	1268.8	1268.8
7.5°	1259.8	1259.8	1253.4	1262.4	1263.7
10°	1247.0	1247.0	1243.2	1253.4	1253.4
12.5°	1231.7	1231.7	1231.7	1241.9	1243.2
15°	1212.5	1213.8	1215.1	1227.9	1230.4
17.5°	1189.5	1192.0	1195.9	1211.2	1213.8
20°	1165.2	1167.7	1174.1	1192.0	1195.9
22.5°	1134.5	1140.9	1149.8	1170.3	1174.1
25°	1106.4	1111.5	1124.3	1146.0	1152.4
27.5°	1071.8	1079.5	1096.1	1119.1	1128.1
30°	1037.3	1045.0	1065.4	1092.3	1100.0
32.5°	1000.2	1011.7	1033.4	1061.6	1070.5
35°	961.8	972.1	997.6	1030.9	1041.1
37.5°	919.6	933.7	961.8	997.6	1010.4
40°	878.7	894.0	926.0	964.4	979.7
42.5°	837.8	853.1	888.9	932.4	947.8
45°	791.7	808.3	849.3	895.3	911.9
47.5°	745.7	766.1	810.9	859.5	877.4
50°	698.3	721.4	770.0	821.1	841.6
52.5°	656.1	677.9	729.0	784.0	803.2
55°	607.5	631.8	688.1	744.4	766.1
57.5°	557.7	584.5	644.6	706.0	727.8
60°	509.0	538.5	605.0	666.4	690.7
62.5°	461.7	491.1	560.2	624.2	648.5
65°	410.6	445.1	516.7	582.0	605.0
67.5°	362.0	399.1	474.5	538.5	561.5
70°	314.6	350.5	431.0	493.7	516.7
72.5°	263.5	304.4	385.0	450.2	474.5
75°	212.3	260.9	340.2	404.2	427.2
77.5°	165.0	214.9	294.2	346.6	358.1
80°	121.5	172.7	241.7	278.8	292.9
82.5°	78.0	129.2	184.2	211.0	222.5
85°	43.5	85.7	120.2	135.6	140.7
87.5°	17.9	37.1	48.6	55.0	55.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)