

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: P310736

Luminaire Tested: **24FCZ2-40-UNV-L82765-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: P310736
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-CP125-W2A-U-4000K
Description: 2'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: 3610.0 lumens
Efficiency: N/A
Efficacy: 109.1 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

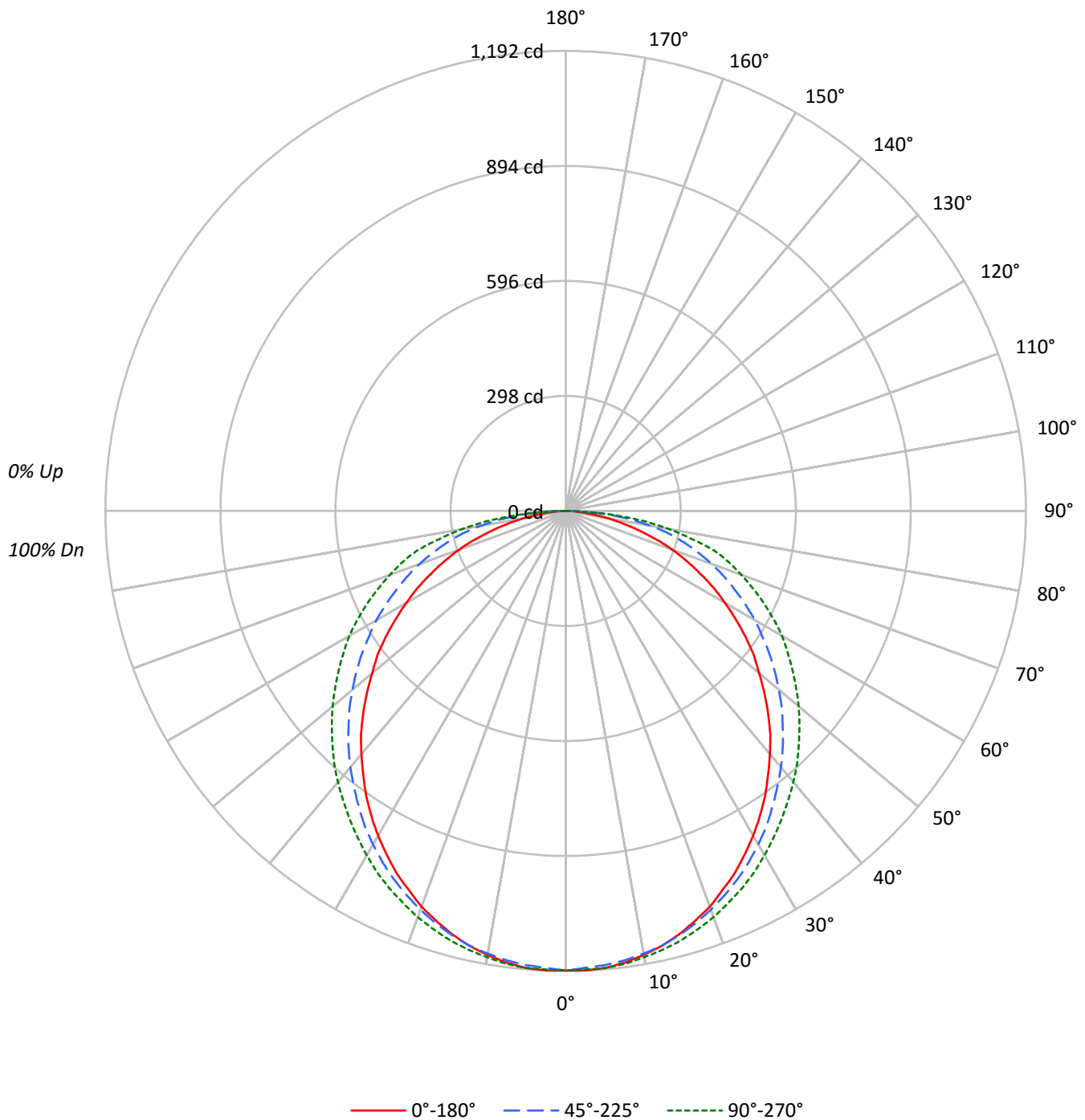
Input Watts (W): 33.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1602	1602	1602
5°	1605	1595	1605
10°	1596	1591	1604
15°	1582	1585	1605
20°	1562	1574	1604
25°	1538	1563	1602
30°	1509	1550	1600
35°	1479	1534	1601
40°	1445	1523	1612
45°	1411	1513	1625
50°	1369	1509	1650
55°	1335	1512	1683
60°	1283	1524	1741
65°	1224	1541	1804
70°	1159	1588	1904
75°	1033	1656	2079
80°	882	1754	2125
85°	628	1738	2035



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.7	3.1
10°-20°	322.2	8.9
20°-30°	486.6	13.5
30°-40°	586.5	16.2
40°-50°	615.7	17.1
50°-60°	576.0	16.0
60°-70°	475.7	13.2
70°-80°	324.1	9.0
80°-90°	110.5	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°	921.5	25.5
0°-40°	1507.9	41.8
0°-60°	2699.6	74.8
0°-90°	3610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3610.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1190	1190	1190	1190	1190	
5°	1188	1187	1181	1188	1188	113
15°	1136	1137	1138	1150	1152	320
25°	1036	1041	1053	1073	1079	477
35°	901	910	934	965	975	563
45°	741	757	795	838	854	572
55°	569	592	644	697	717	508
65°	384	417	484	545	566	381
75°	199	244	319	378	400	212
85°	41	80	113	127	132	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1190.5	1190.5	1190.5	1190.5	1190.5
2.5°	1191.7	1190.5	1184.6	1190.5	1189.3
5°	1188.2	1187.0	1181.0	1188.2	1188.2
7.5°	1179.8	1179.8	1173.8	1182.2	1183.4
10°	1167.8	1167.8	1164.2	1173.8	1173.8
12.5°	1153.4	1153.4	1153.4	1163.0	1164.2
15°	1135.5	1136.6	1137.8	1149.8	1152.2
17.5°	1113.9	1116.3	1119.9	1134.3	1136.6
20°	1091.1	1093.5	1099.5	1116.3	1119.9
22.5°	1062.4	1068.4	1076.8	1095.9	1099.5
25°	1036.0	1040.8	1052.8	1073.2	1079.2
27.5°	1003.7	1010.9	1026.5	1048.0	1056.4
30°	971.4	978.5	997.7	1022.9	1030.1
32.5°	936.6	947.4	967.8	994.1	1002.5
35°	900.7	910.3	934.2	965.4	975.0
37.5°	861.2	874.3	900.7	934.2	946.2
40°	822.8	837.2	867.2	903.1	917.5
42.5°	784.5	798.9	832.4	873.1	887.5
45°	741.4	757.0	795.3	838.4	854.0
47.5°	698.3	717.4	759.4	804.9	821.6
50°	654.0	675.5	721.0	768.9	788.1
52.5°	614.4	634.8	682.7	734.2	752.2
55°	568.9	591.7	644.4	697.1	717.4
57.5°	522.2	547.4	603.7	661.1	681.5
60°	476.7	504.2	566.5	624.0	646.8
62.5°	432.4	459.9	524.6	584.5	607.3
65°	384.5	416.8	483.9	545.0	566.5
67.5°	339.0	373.7	444.4	504.2	525.8
70°	294.6	328.2	403.6	462.3	483.9
72.5°	246.7	285.1	360.5	421.6	444.4
75°	198.8	244.3	318.6	378.5	400.0
77.5°	154.5	201.2	275.5	324.6	335.4
80°	113.8	161.7	226.4	261.1	274.3
82.5°	73.1	121.0	172.5	197.6	208.4
85°	40.7	80.2	112.6	127.0	131.8
87.5°	16.8	34.7	45.5	51.5	51.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)