

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: P310731

Luminaire Tested: **24FCZ2-40-UNV-L82765-CA125-W2A-U-5700K**

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: P310731
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-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 5700K 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: 3844.0 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

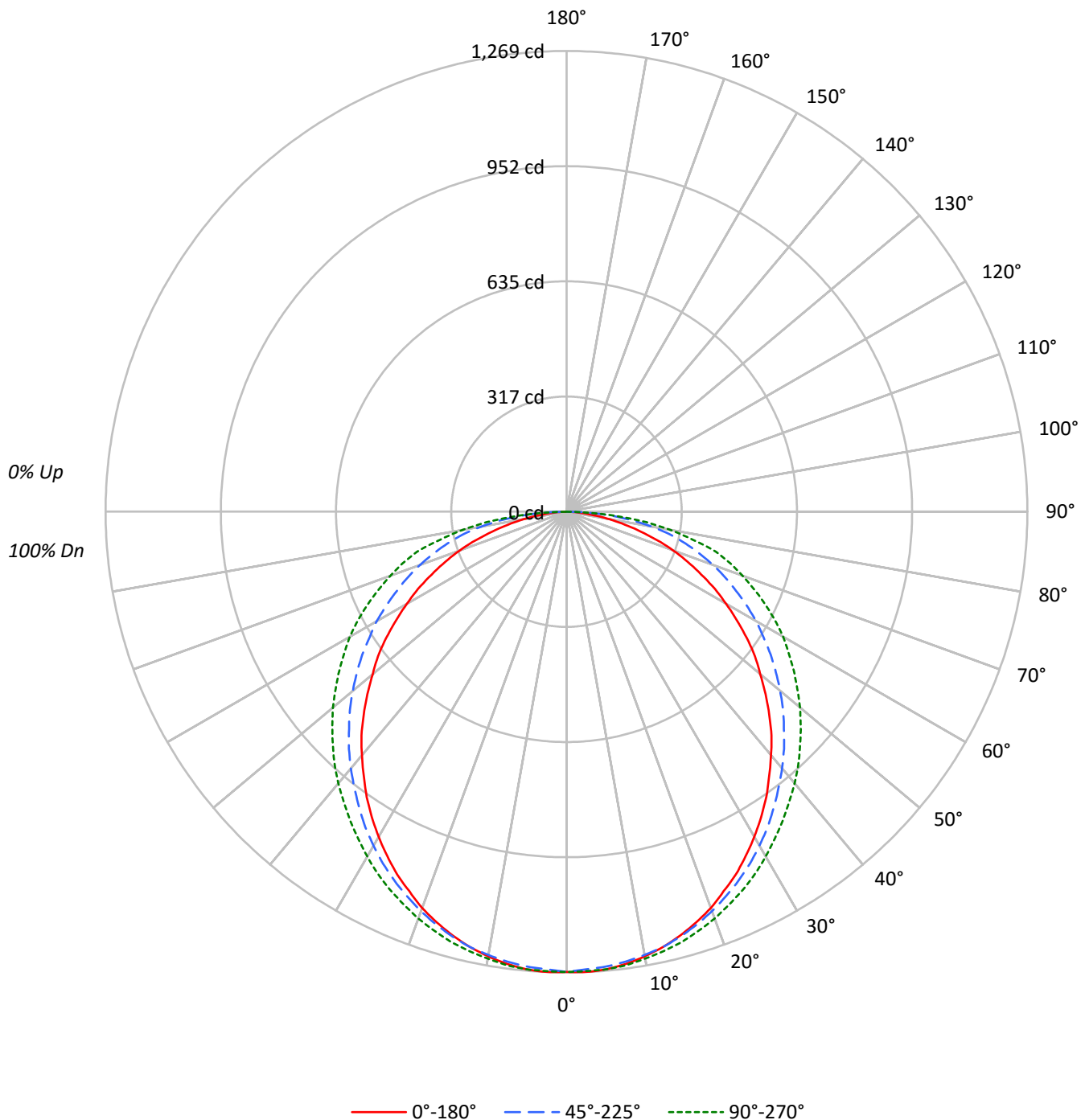
Input Watts (W): 33.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1706	1706	1706
5°	1709	1698	1709
10°	1699	1694	1708
15°	1684	1688	1709
20°	1664	1676	1707
25°	1638	1664	1706
30°	1607	1651	1704
35°	1575	1634	1705
40°	1539	1622	1716
45°	1502	1611	1730
50°	1458	1607	1757
55°	1421	1609	1792
60°	1366	1623	1853
65°	1303	1640	1921
70°	1234	1691	2027
75°	1101	1763	2215
80°	939	1867	2263
85°	670	1851	2166



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.0	3.1
10°-20°	343.1	8.9
20°-30°	518.2	13.5
30°-40°	624.5	16.2
40°-50°	655.6	17.1
50°-60°	613.3	16.0
60°-70°	506.5	13.2
70°-80°	345.1	9.0
80°-90°	117.7	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°	981.2	25.5
0°-40°	1605.7	41.8
0°-60°	2874.6	74.8
0°-90°	3844.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3844.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1268	1268	1268	1268	1268	
5°	1265	1264	1258	1265	1265	120
15°	1209	1210	1212	1224	1227	341
25°	1103	1108	1121	1143	1149	508
35°	959	969	995	1028	1038	599
45°	790	806	847	893	909	609
55°	606	630	686	742	764	541
65°	409	444	515	580	603	406
75°	212	260	339	403	426	226
85°	43	85	120	135	140	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1267.7	1267.7	1267.7	1267.7	1267.7
2.5°	1269.0	1267.7	1261.3	1267.7	1266.4
5°	1265.2	1263.9	1257.5	1265.2	1265.2
7.5°	1256.2	1256.2	1249.9	1258.8	1260.1
10°	1243.5	1243.5	1239.7	1249.9	1249.9
12.5°	1228.2	1228.2	1228.2	1238.4	1239.7
15°	1209.1	1210.3	1211.6	1224.4	1226.9
17.5°	1186.1	1188.6	1192.5	1207.8	1210.3
20°	1161.9	1164.4	1170.8	1188.6	1192.5
22.5°	1131.3	1137.6	1146.6	1167.0	1170.8
25°	1103.2	1108.3	1121.1	1142.7	1149.1
27.5°	1068.8	1076.4	1093.0	1115.9	1124.9
30°	1034.3	1042.0	1062.4	1089.2	1096.8
32.5°	997.3	1008.8	1030.5	1058.6	1067.5
35°	959.1	969.3	994.8	1027.9	1038.2
37.5°	917.0	931.0	959.1	994.8	1007.5
40°	876.2	891.5	923.4	961.6	976.9
42.5°	835.4	850.7	886.4	929.7	945.0
45°	789.5	806.0	846.8	892.8	909.3
47.5°	743.5	763.9	808.6	857.0	874.9
50°	696.4	719.3	767.8	818.8	839.2
52.5°	654.3	675.9	727.0	781.8	800.9
55°	605.8	630.0	686.1	742.3	763.9
57.5°	556.1	582.8	642.8	704.0	725.7
60°	507.6	536.9	603.3	664.5	688.7
62.5°	460.4	489.7	558.6	622.4	646.6
65°	409.4	443.8	515.2	580.3	603.3
67.5°	360.9	397.9	473.2	536.9	559.9
70°	313.7	349.5	429.8	492.3	515.2
72.5°	262.7	303.5	383.9	448.9	473.2
75°	211.7	260.2	339.2	403.0	426.0
77.5°	164.5	214.3	293.3	345.6	357.1
80°	121.2	172.2	241.0	278.0	292.1
82.5°	77.8	128.8	183.7	210.4	221.9
85°	43.4	85.4	119.9	135.2	140.3
87.5°	17.9	37.0	48.5	54.8	54.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)