

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: P310920

Luminaire Tested: **24FCZ2-50-UNV-L82765-CP125-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: P310920
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: 24FCZ2-50-UNV-L82765-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 4659.0 lumens
Efficiency: N/A
Efficacy: 106.1 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

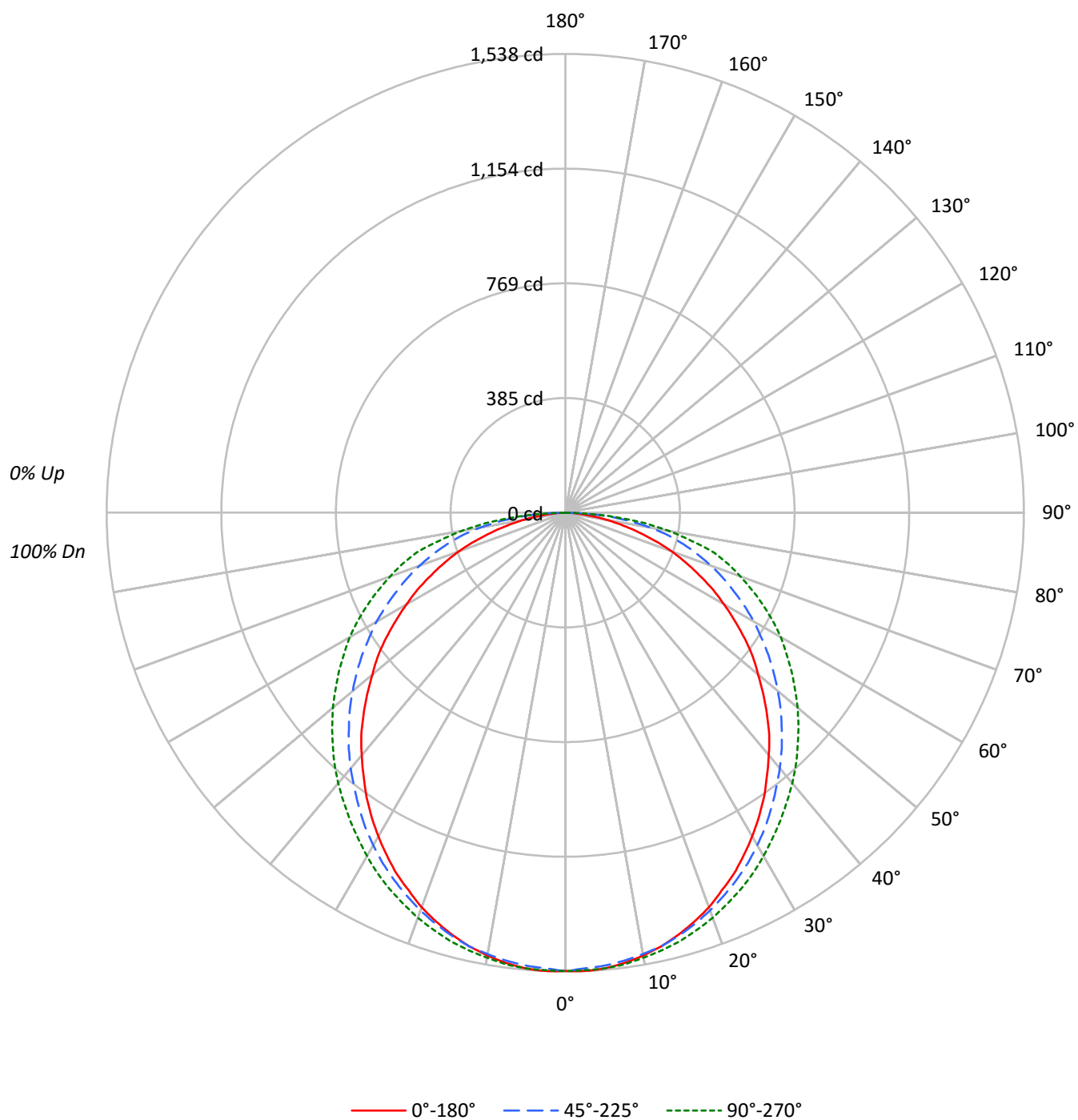
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	98	94	105	100	96	92		96	92	89		92	89	87		88	86	84
2	98	89	81	75	95	87	80	74		83	78	73		80	75	71		77	73	69
3	89	77	69	62	86	76	68	61		73	66	60		70	64	59		67	62	58
4	81	68	59	52	79	67	58	52		64	57	51		62	56	50		60	54	50
5	74	61	52	45	72	60	51	44		58	50	44		56	49	43		54	48	43
6	69	55	46	39	67	54	45	39		52	44	38		50	43	38		49	42	38
7	64	50	41	34	62	49	40	34		47	39	34		46	39	34		44	38	33
8	59	45	37	31	57	45	36	30		43	36	30		42	35	30		41	34	30
9	55	41	33	27	54	41	33	27		40	32	27		39	32	27		38	31	27
10	52	38	30	25	50	38	30	25		37	30	25		36	29	25		35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2067	2067	2067
5°	2071	2058	2071
10°	2059	2053	2070
15°	2041	2046	2071
20°	2016	2032	2069
25°	1985	2017	2068
30°	1948	2000	2065
35°	1909	1980	2067
40°	1865	1966	2080
45°	1821	1953	2097
50°	1767	1948	2129
55°	1722	1951	2172
60°	1655	1968	2246
65°	1580	1988	2328
70°	1496	2049	2457
75°	1334	2138	2684
80°	1137	2264	2743
85°	812	2243	2624



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.4	3.1
10°-20°	415.8	8.9
20°-30°	628.0	13.5
30°-40°	756.9	16.2
40°-50°	794.6	17.1
50°-60°	743.4	16.0
60°-70°	613.9	13.2
70°-80°	418.3	9.0
80°-90°	142.7	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°	1189.2	25.5
0°-40°	1946.1	41.8
0°-60°	3484.1	74.8
0°-90°	4659.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4659.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1536	1536	1536	1536	1536	
5°	1533	1532	1524	1533	1533	146
15°	1465	1467	1468	1484	1487	413
25°	1337	1343	1359	1385	1393	615
35°	1162	1175	1206	1246	1258	726
45°	957	977	1026	1082	1102	738
55°	734	764	832	900	926	655
65°	496	538	624	703	731	492
75°	257	315	411	488	516	274
85°	53	104	145	164	170	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1536.5	1536.5	1536.5	1536.5	1536.5
2.5°	1538.0	1536.5	1528.8	1536.5	1535.0
5°	1533.4	1531.9	1524.1	1533.4	1533.4
7.5°	1522.6	1522.6	1514.9	1525.7	1527.2
10°	1507.1	1507.1	1502.5	1514.9	1514.9
12.5°	1488.6	1488.6	1488.6	1500.9	1502.5
15°	1465.4	1466.9	1468.5	1483.9	1487.0
17.5°	1437.6	1440.7	1445.3	1463.8	1466.9
20°	1408.2	1411.3	1419.0	1440.7	1445.3
22.5°	1371.1	1378.8	1389.6	1414.4	1419.0
25°	1337.1	1343.3	1358.7	1385.0	1392.7
27.5°	1295.4	1304.6	1324.7	1352.6	1363.4
30°	1253.6	1262.9	1287.6	1320.1	1329.4
32.5°	1208.8	1222.7	1249.0	1283.0	1293.8
35°	1162.4	1174.8	1205.7	1245.9	1258.3
37.5°	1111.4	1128.4	1162.4	1205.7	1221.2
40°	1061.9	1080.5	1119.1	1165.5	1184.1
42.5°	1012.5	1031.0	1074.3	1126.9	1145.4
45°	956.8	976.9	1026.4	1082.0	1102.1
47.5°	901.2	925.9	980.0	1038.8	1060.4
50°	844.0	871.8	930.6	992.4	1017.1
52.5°	793.0	819.3	881.1	947.6	970.7
55°	734.2	763.6	831.6	899.6	925.9
57.5°	674.0	706.4	779.1	853.3	879.5
60°	615.2	650.8	731.2	805.3	834.7
62.5°	558.0	593.6	677.0	754.3	783.7
65°	496.2	537.9	624.5	703.3	731.2
67.5°	437.5	482.3	573.5	650.8	678.6
70°	380.3	423.5	520.9	596.7	624.5
72.5°	318.4	367.9	465.3	544.1	573.5
75°	256.6	315.3	411.2	488.5	516.3
77.5°	199.4	259.7	355.5	418.9	432.8
80°	146.8	208.7	292.2	337.0	354.0
82.5°	94.3	156.1	222.6	255.1	269.0
85°	52.6	103.6	145.3	163.9	170.0
87.5°	21.6	44.8	58.7	66.5	66.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)