

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: P310827

Luminaire Tested: **24FCZ2-45-UNV-L82765-CP125-W2A-U-4500K**

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: P310827
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: 24FCZ2-45-UNV-L82765-CP125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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

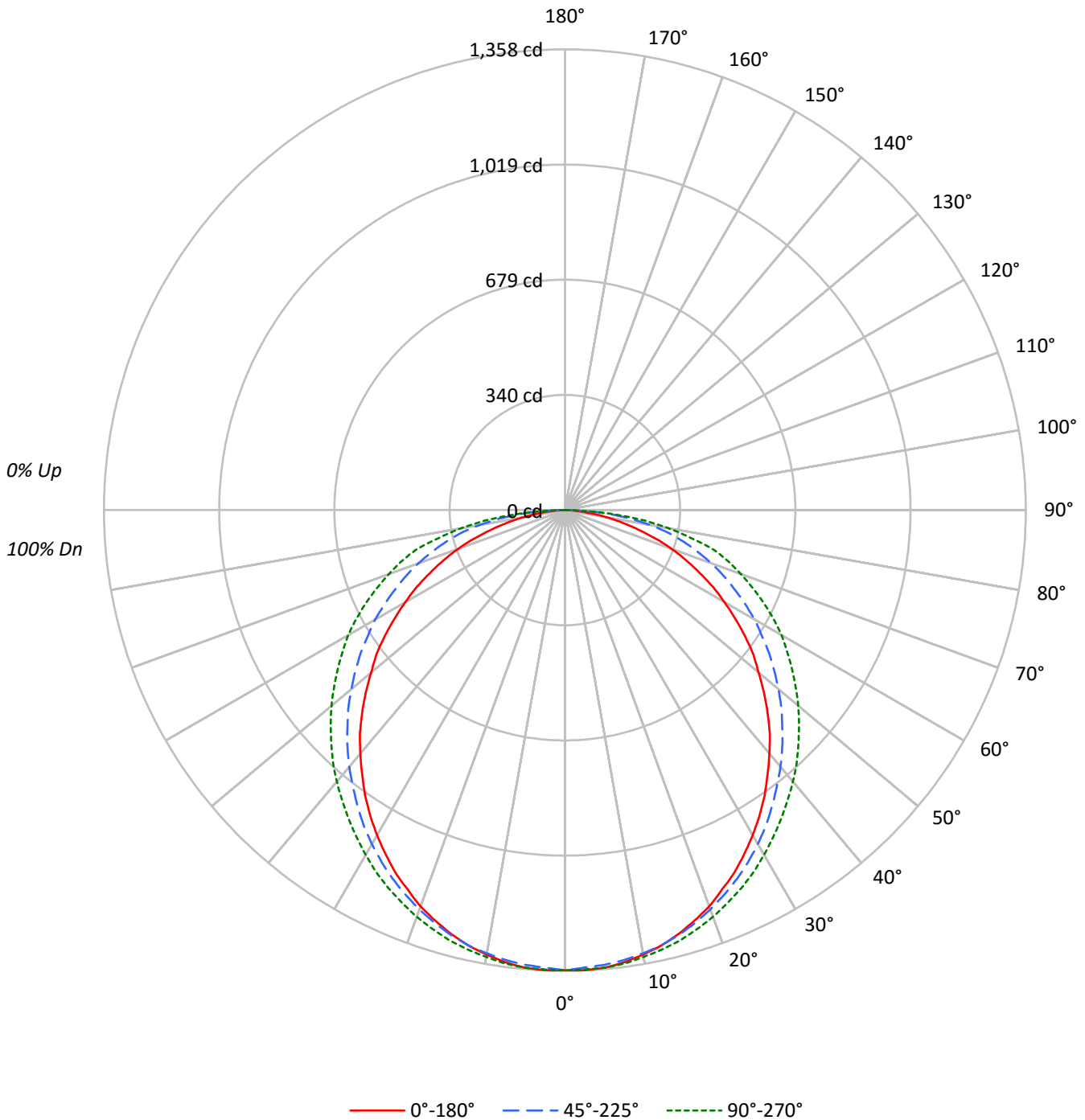
Lumens per Lamp: N/A
Luminaire Lumens: 4113.0 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.3
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	108	103	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1825	1825	1825
5°	1828	1817	1828
10°	1818	1812	1827
15°	1802	1806	1829
20°	1780	1794	1827
25°	1752	1781	1825
30°	1719	1766	1823
35°	1686	1748	1825
40°	1647	1735	1836
45°	1607	1724	1851
50°	1560	1720	1879
55°	1521	1722	1917
60°	1461	1737	1983
65°	1394	1755	2055
70°	1321	1809	2169
75°	1177	1887	2370
80°	1004	1998	2421
85°	716	1981	2317



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.4	3.1
10°-20°	367.1	8.9
20°-30°	554.4	13.5
30°-40°	668.2	16.2
40°-50°	701.5	17.1
50°-60°	656.3	16.0
60°-70°	542.0	13.2
70°-80°	369.3	9.0
80°-90°	125.9	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°	1049.8	25.5
0°-40°	1718.0	41.8
0°-60°	3075.8	74.8
0°-90°	4113.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4113.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1356	1356	1356	1356	1356	
5°	1354	1352	1346	1354	1354	128
15°	1294	1295	1296	1310	1313	365
25°	1180	1186	1200	1223	1230	543
35°	1026	1037	1064	1100	1111	641
45°	845	862	906	955	973	651
55°	648	674	734	794	817	579
65°	438	475	551	621	646	434
75°	226	278	363	431	456	242
85°	46	91	128	145	150	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1356.4	1356.4	1356.4	1356.4	1356.4
2.5°	1357.8	1356.4	1349.6	1356.4	1355.1
5°	1353.7	1352.3	1345.5	1353.7	1353.7
7.5°	1344.2	1344.2	1337.3	1346.9	1348.2
10°	1330.5	1330.5	1326.4	1337.3	1337.3
12.5°	1314.1	1314.1	1314.1	1325.0	1326.4
15°	1293.7	1295.0	1296.4	1310.0	1312.8
17.5°	1269.1	1271.8	1275.9	1292.3	1295.0
20°	1243.2	1245.9	1252.7	1271.8	1275.9
22.5°	1210.4	1217.2	1226.8	1248.6	1252.7
25°	1180.4	1185.9	1199.5	1222.7	1229.5
27.5°	1143.6	1151.7	1169.5	1194.0	1203.6
30°	1106.7	1114.9	1136.7	1165.4	1173.6
32.5°	1067.1	1079.4	1102.6	1132.6	1142.2
35°	1026.2	1037.1	1064.4	1099.9	1110.8
37.5°	981.2	996.2	1026.2	1064.4	1078.0
40°	937.5	953.9	988.0	1028.9	1045.3
42.5°	893.8	910.2	948.4	994.8	1011.2
45°	844.7	862.4	906.1	955.2	973.0
47.5°	795.6	817.4	865.2	917.0	936.1
50°	745.1	769.6	821.5	876.1	897.9
52.5°	700.0	723.2	777.8	836.5	857.0
55°	648.2	674.1	734.2	794.2	817.4
57.5°	595.0	623.6	687.8	753.3	776.5
60°	543.1	574.5	645.5	711.0	736.9
62.5°	492.6	524.0	597.7	665.9	691.9
65°	438.0	474.9	551.3	620.9	645.5
67.5°	386.2	425.8	506.3	574.5	599.1
70°	335.7	373.9	459.9	526.7	551.3
72.5°	281.1	324.8	410.8	480.3	506.3
75°	226.5	278.4	363.0	431.2	455.8
77.5°	176.0	229.3	313.9	369.8	382.1
80°	129.6	184.2	257.9	297.5	312.5
82.5°	83.2	137.8	196.5	225.2	237.4
85°	46.4	91.4	128.3	144.6	150.1
87.5°	19.1	39.6	51.9	58.7	58.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)