

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: P311138

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-CP125-W2A-U-2700K**

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: P311138
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: 24FCZ2-75HE-UNV-L82765-CP125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 2700K 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: 6179.0 lumens
Efficiency: N/A
Efficacy: 98.4 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

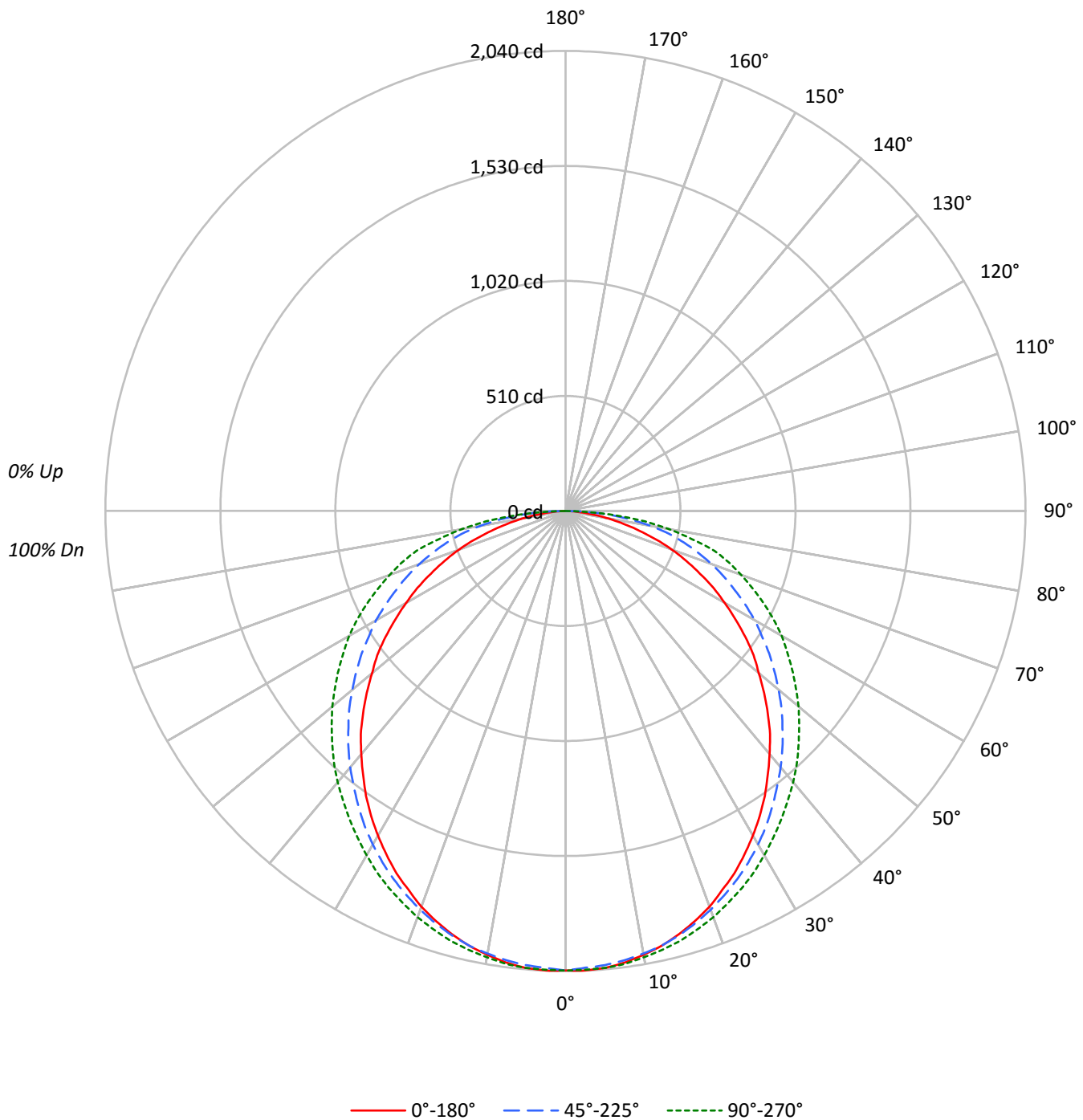
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P311138

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-CP125-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P311138

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-CP125-W2A-U-2700K

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°	2742	2742	2742
5°	2747	2730	2747
10°	2731	2723	2745
15°	2707	2713	2747
20°	2674	2695	2745
25°	2633	2675	2742
30°	2583	2653	2739
35°	2532	2627	2741
40°	2474	2607	2758
45°	2415	2590	2781
50°	2343	2583	2824
55°	2284	2587	2881
60°	2196	2609	2979
65°	2095	2637	3087
70°	1984	2718	3258
75°	1769	2835	3559
80°	1509	3002	3638
85°	1076	2975	3481



TEST NUMBER: P311138

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-CP125-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.9	3.1
10°-20°	551.4	8.9
20°-30°	832.9	13.5
30°-40°	1003.8	16.2
40°-50°	1053.9	17.1
50°-60°	985.9	16.0
60°-70°	814.2	13.2
70°-80°	554.8	9.0
80°-90°	189.2	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°	1577.2	25.5
0°-40°	2581.0	41.8
0°-60°	4620.8	74.8
0°-90°	6179.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6179.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2038	2038	2038	2038	2038	
5°	2034	2032	2021	2034	2034	193
15°	1944	1946	1948	1968	1972	548
25°	1773	1782	1802	1837	1847	816
35°	1542	1558	1599	1652	1669	963
45°	1269	1296	1361	1435	1462	979
55°	974	1013	1103	1193	1228	869
65°	658	713	828	933	970	653
75°	340	418	545	648	685	363
85°	70	137	193	217	226	87
90°	0	0	0	0	0	



TEST NUMBER: P311138

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-CP125-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2037.8	2037.8	2037.8	2037.8	2037.8
2.5°	2039.8	2037.8	2027.5	2037.8	2035.7
5°	2033.7	2031.6	2021.4	2033.7	2033.7
7.5°	2019.3	2019.3	2009.1	2023.4	2025.5
10°	1998.8	1998.8	1992.7	2009.1	2009.1
12.5°	1974.2	1974.2	1974.2	1990.6	1992.7
15°	1943.5	1945.5	1947.6	1968.1	1972.2
17.5°	1906.6	1910.7	1916.8	1941.4	1945.5
20°	1867.6	1871.7	1882.0	1910.7	1916.8
22.5°	1818.4	1828.7	1843.0	1875.8	1882.0
25°	1773.3	1781.5	1802.0	1836.9	1847.1
27.5°	1718.0	1730.3	1756.9	1793.8	1808.2
30°	1662.6	1674.9	1707.7	1750.8	1763.1
32.5°	1603.2	1621.6	1656.5	1701.6	1715.9
35°	1541.7	1558.1	1599.1	1652.4	1668.8
37.5°	1474.0	1496.6	1541.7	1599.1	1619.6
40°	1408.4	1433.0	1484.3	1545.8	1570.4
42.5°	1342.8	1367.4	1424.8	1494.5	1519.1
45°	1269.0	1295.7	1361.3	1435.1	1461.7
47.5°	1195.2	1228.0	1299.8	1377.7	1406.4
50°	1119.3	1156.2	1234.1	1316.2	1349.0
52.5°	1051.7	1086.5	1168.5	1256.7	1287.5
55°	973.8	1012.7	1102.9	1193.1	1228.0
57.5°	893.8	936.9	1033.2	1131.6	1166.5
60°	815.9	863.1	969.7	1068.1	1107.0
62.5°	740.1	787.2	897.9	1000.4	1039.4
65°	658.1	713.4	828.2	932.8	969.7
67.5°	580.2	639.6	760.6	863.1	900.0
70°	504.3	561.7	690.9	791.3	828.2
72.5°	422.3	487.9	617.1	721.6	760.6
75°	340.3	418.2	545.3	647.8	684.7
77.5°	264.5	344.4	471.5	555.6	574.0
80°	194.8	276.8	387.5	446.9	469.5
82.5°	125.1	207.1	295.2	338.3	356.7
85°	69.7	137.4	192.7	217.3	225.5
87.5°	28.7	59.5	77.9	88.2	88.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)