

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: P311144

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-CP125-W2A-U-5500K**

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: P311144
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-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 5500K 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: 7002.0 lumens
Efficiency: N/A
Efficacy: 108.4 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

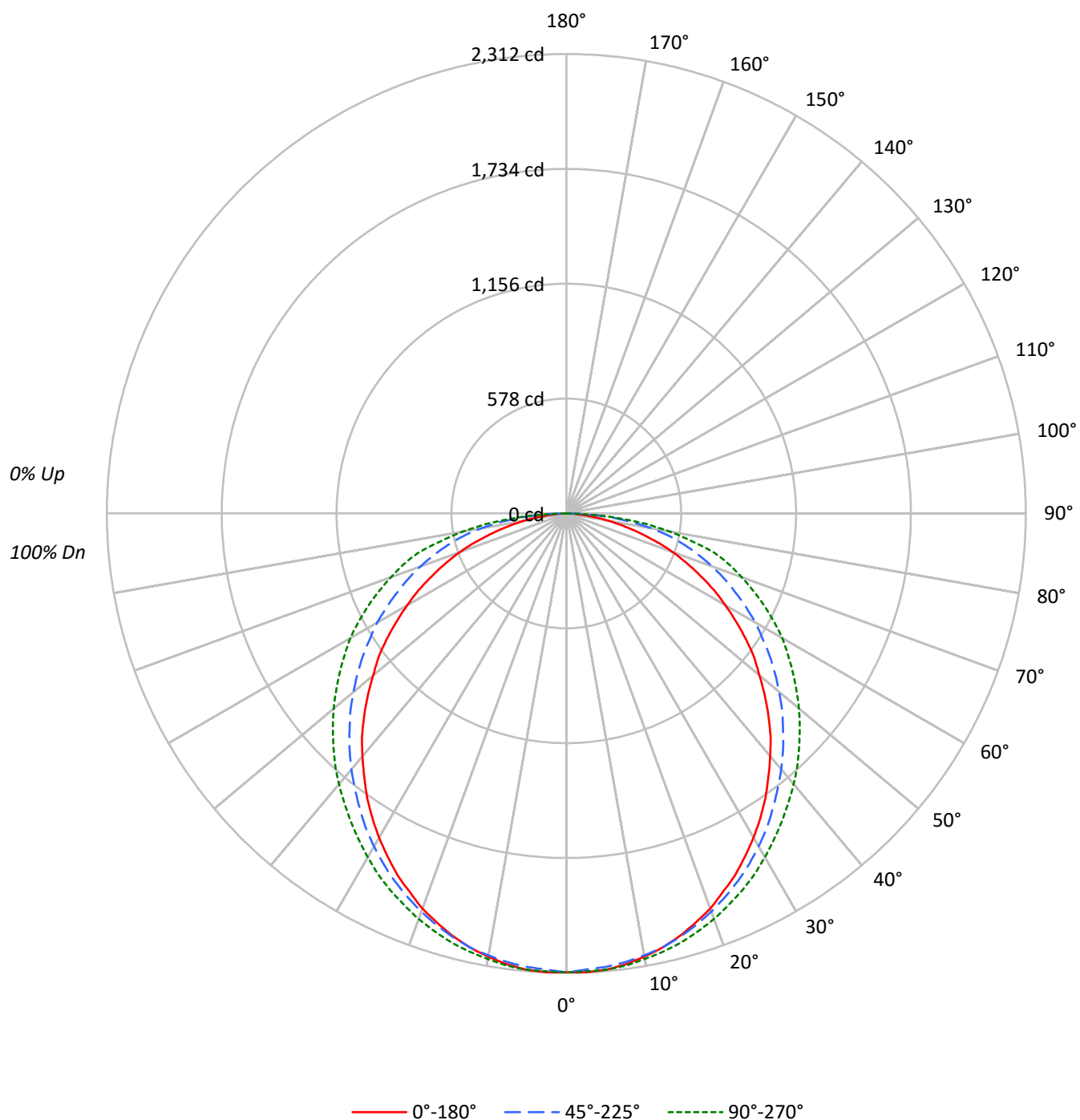
Input Watts (W): 64.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3107	3107	3107
5°	3113	3094	3113
10°	3095	3085	3111
15°	3068	3074	3113
20°	3030	3054	3110
25°	2983	3032	3107
30°	2927	3007	3104
35°	2870	2976	3106
40°	2803	2954	3126
45°	2736	2935	3152
50°	2655	2927	3200
55°	2589	2932	3264
60°	2488	2957	3376
65°	2374	2988	3498
70°	2248	3080	3692
75°	2005	3213	4034
80°	1710	3402	4122
85°	1220	3372	3944



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.5	3.1
10°-20°	624.9	8.9
20°-30°	943.8	13.5
30°-40°	1137.5	16.2
40°-50°	1194.2	17.1
50°-60°	1117.3	16.0
60°-70°	922.6	13.2
70°-80°	628.7	9.0
80°-90°	214.4	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°	1787.2	25.5
0°-40°	2924.8	41.8
0°-60°	5236.2	74.8
0°-90°	7002.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7002.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2309	2309	2309	2309	2309	
5°	2305	2302	2291	2305	2305	219
15°	2202	2205	2207	2230	2235	621
25°	2010	2019	2042	2082	2093	925
35°	1747	1766	1812	1872	1891	1092
45°	1438	1468	1543	1626	1656	1109
55°	1104	1148	1250	1352	1392	985
65°	746	808	938	1057	1099	740
75°	386	474	618	734	776	411
85°	79	156	218	246	256	99
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2309.2	2309.2	2309.2	2309.2	2309.2
2.5°	2311.5	2309.2	2297.6	2309.2	2306.9
5°	2304.6	2302.2	2290.6	2304.6	2304.6
7.5°	2288.3	2288.3	2276.7	2292.9	2295.3
10°	2265.1	2265.1	2258.1	2276.7	2276.7
12.5°	2237.2	2237.2	2237.2	2255.8	2258.1
15°	2202.3	2204.7	2207.0	2230.2	2234.9
17.5°	2160.5	2165.2	2172.1	2200.0	2204.7
20°	2116.4	2121.0	2132.6	2165.2	2172.1
22.5°	2060.6	2072.2	2088.5	2125.7	2132.6
25°	2009.5	2018.8	2042.0	2081.5	2093.1
27.5°	1946.8	1960.7	1990.9	2032.7	2049.0
30°	1884.1	1898.0	1935.2	1984.0	1997.9
32.5°	1816.7	1837.6	1877.1	1928.2	1944.5
35°	1747.0	1765.6	1812.0	1872.4	1891.0
37.5°	1670.3	1695.9	1747.0	1812.0	1835.3
40°	1596.0	1623.9	1682.0	1751.6	1779.5
42.5°	1521.7	1549.5	1614.6	1693.6	1721.4
45°	1438.0	1468.2	1542.6	1626.2	1656.4
47.5°	1354.4	1391.6	1472.9	1561.1	1593.7
50°	1268.4	1310.2	1398.5	1491.5	1528.6
52.5°	1191.8	1231.3	1324.2	1424.1	1458.9
55°	1103.5	1147.6	1249.8	1352.1	1391.6
57.5°	1012.9	1061.7	1170.9	1282.4	1321.9
60°	924.6	978.0	1098.8	1210.4	1254.5
62.5°	838.7	892.1	1017.5	1133.7	1177.8
65°	745.7	808.5	938.5	1057.0	1098.8
67.5°	657.4	724.8	861.9	978.0	1019.9
70°	571.5	636.5	782.9	896.7	938.5
72.5°	478.6	552.9	699.3	817.7	861.9
75°	385.6	473.9	618.0	734.1	775.9
77.5°	299.7	390.3	534.3	629.6	650.5
80°	220.7	313.6	439.1	506.4	532.0
82.5°	141.7	234.6	334.5	383.3	404.2
85°	79.0	155.7	218.4	246.3	255.5
87.5°	32.5	67.4	88.3	99.9	99.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)