

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: P311132

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-CA125-W2A-U-4000K**

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: P311132
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-CA125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 4000K 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: 6854.0 lumens
Efficiency: N/A
Efficacy: 107.9 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

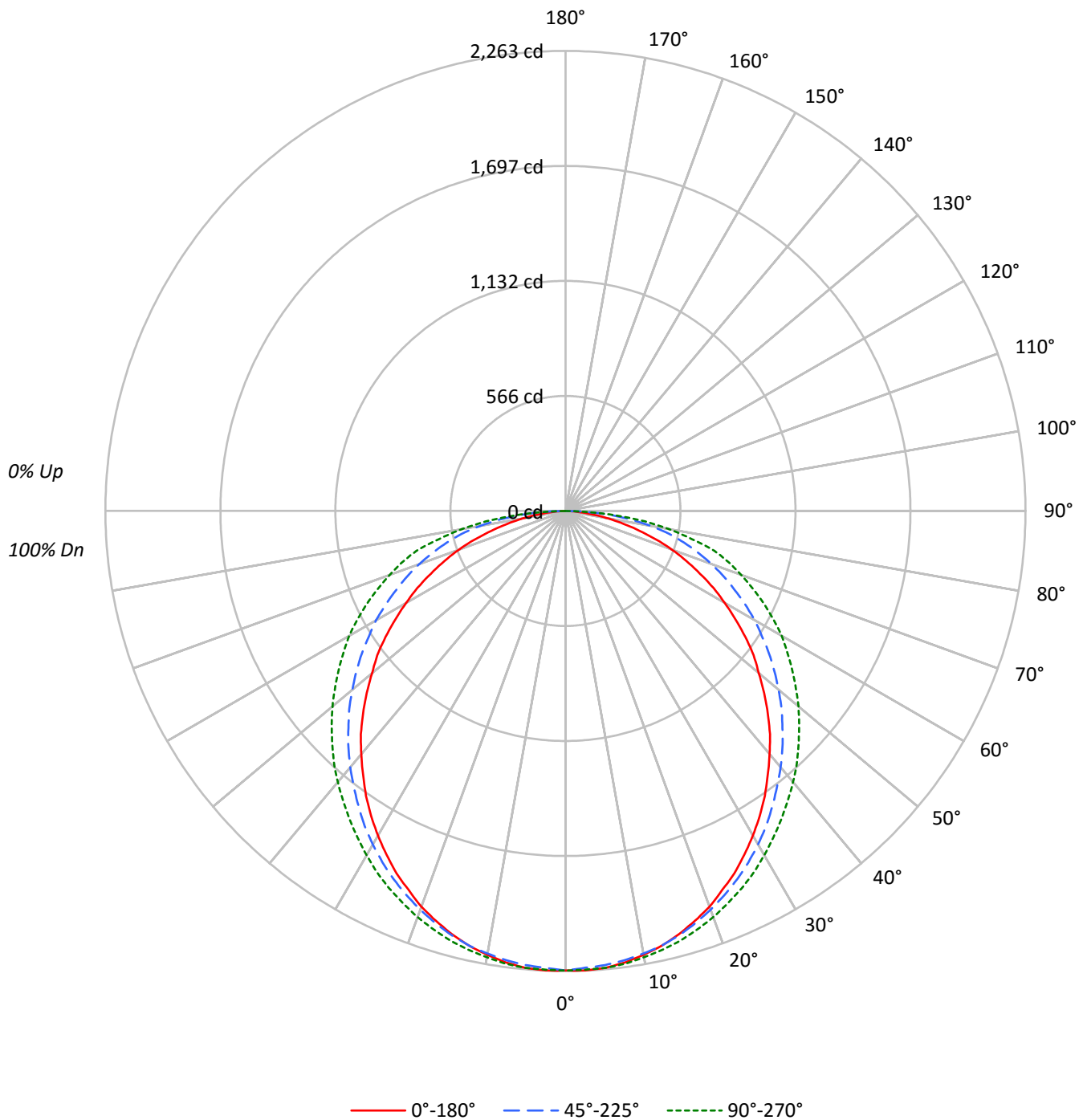
Input Watts (W): 63.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3041	3041	3041
5°	3047	3028	3047
10°	3029	3020	3045
15°	3003	3009	3047
20°	2966	2989	3044
25°	2920	2968	3042
30°	2865	2943	3038
35°	2809	2913	3041
40°	2744	2892	3059
45°	2678	2873	3085
50°	2599	2866	3132
55°	2534	2870	3195
60°	2436	2894	3305
65°	2324	2925	3424
70°	2201	3015	3614
75°	1962	3145	3948
80°	1674	3330	4035
85°	1193	3301	3861



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.9	3.1
10°-20°	611.7	8.9
20°-30°	923.9	13.5
30°-40°	1113.5	16.2
40°-50°	1169.0	17.1
50°-60°	1093.6	16.0
60°-70°	903.1	13.2
70°-80°	615.4	9.0
80°-90°	209.9	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°	1749.5	25.5
0°-40°	2863.0	41.8
0°-60°	5125.6	74.8
0°-90°	6854.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6854.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2260	2260	2260	2260	2260	
5°	2256	2254	2242	2256	2256	214
15°	2156	2158	2160	2183	2188	608
25°	1967	1976	1999	2038	2049	905
35°	1710	1728	1774	1833	1851	1069
45°	1408	1437	1510	1592	1621	1086
55°	1080	1123	1223	1324	1362	964
65°	730	791	919	1035	1076	724
75°	378	464	605	719	760	403
85°	77	152	214	241	250	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2260.4	2260.4	2260.4	2260.4	2260.4
2.5°	2262.7	2260.4	2249.0	2260.4	2258.1
5°	2255.8	2253.6	2242.2	2255.8	2255.8
7.5°	2239.9	2239.9	2228.6	2244.5	2246.7
10°	2217.2	2217.2	2210.4	2228.6	2228.6
12.5°	2189.9	2189.9	2189.9	2208.1	2210.4
15°	2155.8	2158.1	2160.3	2183.1	2187.6
17.5°	2114.9	2119.4	2126.2	2153.5	2158.1
20°	2071.6	2076.2	2087.6	2119.4	2126.2
22.5°	2017.1	2028.4	2044.4	2080.7	2087.6
25°	1967.0	1976.1	1998.9	2037.5	2048.9
27.5°	1905.6	1919.3	1948.8	1989.8	2005.7
30°	1844.2	1857.9	1894.3	1942.0	1955.7
32.5°	1778.3	1798.8	1837.4	1887.4	1903.4
35°	1710.1	1728.3	1773.7	1832.9	1851.1
37.5°	1635.0	1660.0	1710.1	1773.7	1796.5
40°	1562.3	1589.5	1646.4	1714.6	1741.9
42.5°	1489.5	1516.8	1580.5	1657.8	1685.1
45°	1407.6	1437.2	1510.0	1591.8	1621.4
47.5°	1325.8	1362.1	1441.7	1528.2	1560.0
50°	1241.6	1282.6	1369.0	1459.9	1496.3
52.5°	1166.6	1205.2	1296.2	1394.0	1428.1
55°	1080.2	1123.4	1223.4	1323.5	1362.1
57.5°	991.5	1039.2	1146.1	1255.3	1293.9
60°	905.1	957.4	1075.6	1184.8	1228.0
62.5°	820.9	873.2	996.0	1109.7	1152.9
65°	730.0	791.4	918.7	1034.7	1075.6
67.5°	643.6	709.5	843.7	957.4	998.3
70°	559.4	623.1	766.3	877.8	918.7
72.5°	468.5	541.2	684.5	800.5	843.7
75°	377.5	463.9	604.9	718.6	759.5
77.5°	293.4	382.0	523.0	616.3	636.7
80°	216.0	307.0	429.8	495.7	520.8
82.5°	138.7	229.7	327.5	375.2	395.7
85°	77.3	152.4	213.8	241.0	250.1
87.5°	31.8	65.9	86.4	97.8	97.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)