

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: P311762

Luminaire Tested: **24FCZ2-70HE-UNV-L82765-S-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: P311762
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-70HE-UNV-L82765-S-CA125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH 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: 6737.0 lumens
Efficiency: N/A
Efficacy: 115.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

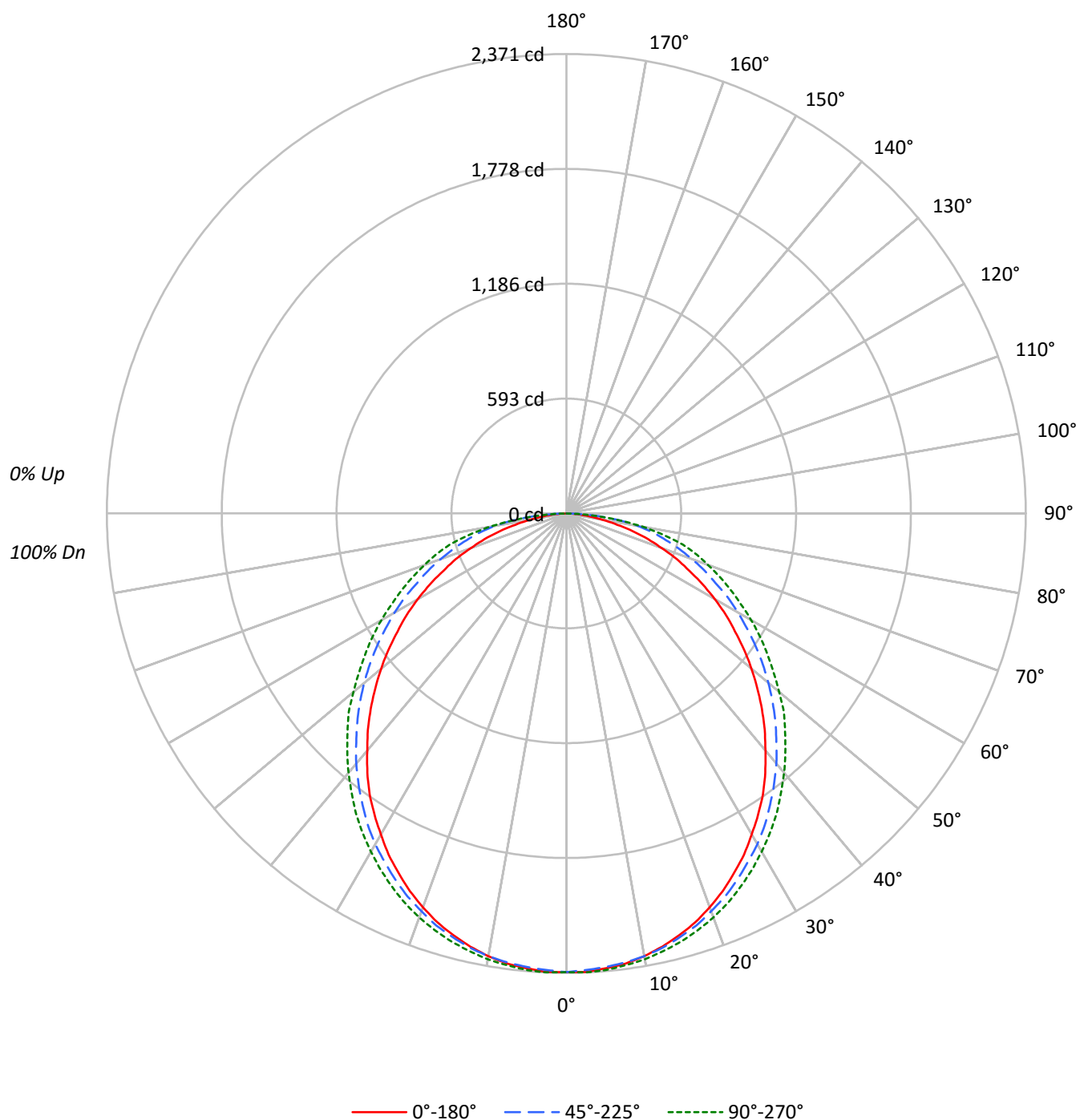
Input Watts (W): 58.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90		93	90	88		83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3185	3185	3185
5°	3182	3173	3194
10°	3169	3169	3193
15°	3139	3154	3187
20°	3098	3128	3177
25°	3040	3097	3158
30°	2972	3062	3132
35°	2907	3012	3107
40°	2808	2962	3071
45°	2716	2903	3038
50°	2611	2849	3001
55°	2495	2796	2972
60°	2378	2753	2966
65°	2228	2705	2984
70°	2063	2719	3064
75°	1847	2770	3237
80°	1492	2935	3167
85°	1124	2577	2510



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.1	3.3
10°-20°	640.2	9.5
20°-30°	962.4	14.3
30°-40°	1146.4	17.0
40°-50°	1173.3	17.4
50°-60°	1056.3	15.7
60°-70°	829.5	12.3
70°-80°	538.4	8.0
80°-90°	166.5	2.5
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°	1826.7	27.1
0°-40°	2973.1	44.1
0°-60°	5202.6	77.2
0°-90°	6737.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6737.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2367	2367	2367	2367	2367	
5°	2356	2360	2350	2362	2365	224
15°	2253	2260	2264	2283	2288	635
25°	2048	2065	2086	2121	2127	943
35°	1770	1791	1834	1879	1892	1104
45°	1427	1462	1526	1584	1596	1100
55°	1064	1111	1192	1254	1267	953
65°	700	753	850	920	937	697
75°	355	424	533	606	623	376
85°	73	135	167	163	163	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2366.8	2366.8	2366.8	2366.8	2366.8
2.5°	2368.9	2368.9	2358.2	2368.9	2371.0
5°	2356.1	2360.3	2349.6	2362.5	2364.6
7.5°	2343.2	2343.2	2336.8	2349.6	2351.8
10°	2319.7	2321.8	2319.7	2334.7	2336.8
12.5°	2289.7	2294.0	2296.1	2311.1	2313.3
15°	2253.3	2259.8	2264.0	2283.3	2287.6
17.5°	2212.7	2219.1	2229.8	2251.2	2255.5
20°	2163.5	2172.0	2184.9	2212.7	2219.1
22.5°	2110.0	2118.5	2139.9	2165.6	2176.3
25°	2047.9	2065.0	2086.4	2120.7	2127.1
27.5°	1985.8	2000.8	2028.6	2065.0	2073.6
30°	1913.1	1936.6	1970.9	2007.2	2015.8
32.5°	1842.5	1866.0	1906.7	1945.2	1955.9
35°	1769.7	1791.1	1833.9	1878.9	1891.7
37.5°	1686.3	1714.1	1761.2	1806.1	1818.9
40°	1598.5	1632.8	1686.3	1733.3	1748.3
42.5°	1515.1	1551.4	1604.9	1656.3	1673.4
45°	1427.3	1461.6	1525.8	1583.5	1596.4
47.5°	1337.5	1376.0	1444.4	1502.2	1523.6
50°	1247.6	1288.2	1361.0	1420.9	1433.7
52.5°	1157.7	1200.5	1277.5	1341.7	1348.1
55°	1063.5	1110.6	1191.9	1254.0	1266.8
57.5°	977.9	1018.6	1106.3	1170.5	1185.5
60°	883.8	928.7	1022.9	1082.8	1102.1
62.5°	793.9	841.0	939.4	999.3	1016.5
65°	699.8	753.3	849.5	920.2	937.3
67.5°	618.4	669.8	772.5	841.0	858.1
70°	524.3	582.1	691.2	761.8	778.9
72.5°	443.0	502.9	612.0	680.5	706.2
75°	355.2	423.7	532.8	605.6	622.7
77.5°	269.6	348.8	460.1	515.7	515.7
80°	192.6	276.0	378.8	404.4	408.7
82.5°	126.3	207.6	280.3	278.2	278.2
85°	72.8	134.8	166.9	162.6	162.6
87.5°	27.8	55.6	59.9	59.9	57.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)