

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: P311719

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-S-CA125-W2A-U-5000K**

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: P311719
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: 24FCZ2-65HE-UNV-L82765-S-CA125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5000K 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: 6442.0 lumens
Efficiency: N/A
Efficacy: 119.7 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

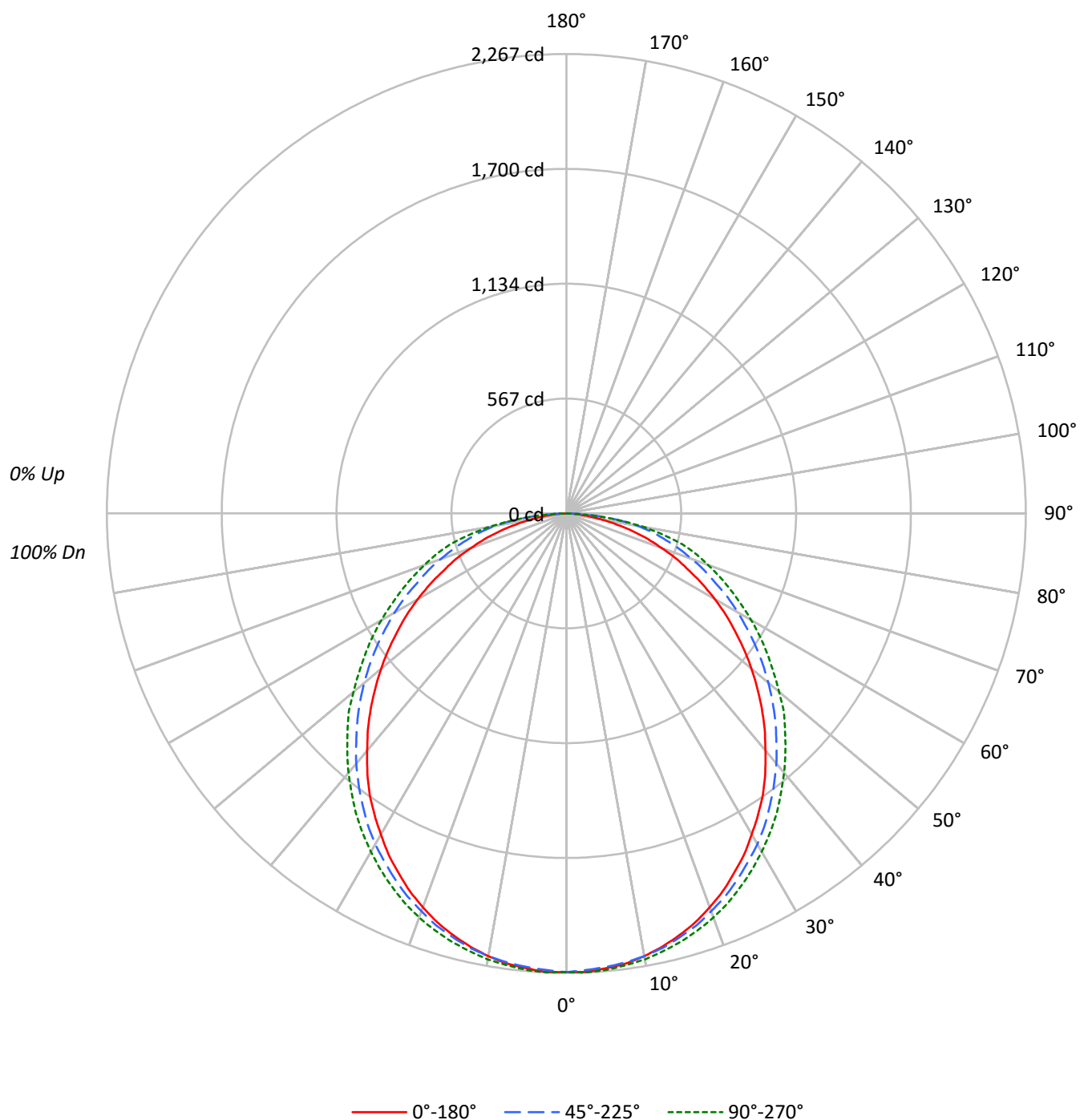
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3045	3045	3045
5°	3043	3034	3054
10°	3030	3030	3053
15°	3001	3016	3047
20°	2962	2991	3038
25°	2907	2962	3019
30°	2842	2928	2995
35°	2780	2880	2971
40°	2685	2832	2936
45°	2597	2776	2905
50°	2497	2724	2870
55°	2386	2673	2842
60°	2274	2632	2836
65°	2130	2586	2853
70°	1972	2600	2930
75°	1766	2649	3095
80°	1427	2806	3028
85°	1074	2464	2401



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.2	3.3
10°-20°	612.2	9.5
20°-30°	920.3	14.3
30°-40°	1096.2	17.0
40°-50°	1121.9	17.4
50°-60°	1010.0	15.7
60°-70°	793.2	12.3
70°-80°	514.8	8.0
80°-90°	159.2	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°	1746.7	27.1
0°-40°	2842.9	44.1
0°-60°	4974.8	77.2
0°-90°	6442.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6442.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2263	2263	2263	2263	2263	
5°	2253	2257	2247	2259	2261	214
15°	2155	2161	2165	2183	2187	608
25°	1958	1975	1995	2028	2034	902
35°	1692	1713	1754	1797	1809	1056
45°	1365	1398	1459	1514	1526	1052
55°	1017	1062	1140	1199	1211	912
65°	669	720	812	880	896	666
75°	340	405	510	579	595	359
85°	70	129	160	156	156	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2263.1	2263.1	2263.1	2263.1	2263.1
2.5°	2265.2	2265.2	2254.9	2265.2	2267.2
5°	2252.9	2257.0	2246.7	2259.0	2261.1
7.5°	2240.6	2240.6	2234.5	2246.7	2248.8
10°	2218.1	2220.1	2218.1	2232.4	2234.5
12.5°	2189.5	2193.5	2195.6	2209.9	2212.0
15°	2154.7	2160.8	2164.9	2183.3	2187.4
17.5°	2115.8	2121.9	2132.2	2152.6	2156.7
20°	2068.7	2076.9	2089.2	2115.8	2121.9
22.5°	2017.6	2025.8	2046.2	2070.8	2081.0
25°	1958.2	1974.6	1995.1	2027.8	2033.9
27.5°	1898.9	1913.2	1939.8	1974.6	1982.8
30°	1829.3	1851.8	1884.6	1919.4	1927.5
32.5°	1761.8	1784.3	1823.2	1860.0	1870.2
35°	1692.2	1712.7	1753.6	1796.6	1808.9
37.5°	1612.4	1639.0	1684.0	1727.0	1739.3
40°	1528.5	1561.3	1612.4	1657.4	1671.8
42.5°	1448.7	1483.5	1534.7	1583.8	1600.1
45°	1364.8	1397.6	1459.0	1514.2	1526.5
47.5°	1278.9	1315.7	1381.2	1436.4	1456.9
50°	1192.9	1231.8	1301.4	1358.7	1371.0
52.5°	1107.0	1147.9	1221.6	1283.0	1289.1
55°	1017.0	1062.0	1139.7	1199.1	1211.4
57.5°	935.1	974.0	1057.9	1119.3	1133.6
60°	845.1	888.1	978.1	1035.4	1053.8
62.5°	759.1	804.2	898.3	955.6	972.0
65°	669.1	720.3	812.3	879.9	896.2
67.5°	591.4	640.5	738.7	804.2	820.5
70°	501.3	556.6	660.9	728.5	744.8
72.5°	423.6	480.9	585.2	650.7	675.3
75°	339.7	405.2	509.5	579.1	595.4
77.5°	257.8	333.5	439.9	493.1	493.1
80°	184.2	264.0	362.2	386.7	390.8
82.5°	120.7	198.5	268.1	266.0	266.0
85°	69.6	128.9	159.6	155.5	155.5
87.5°	26.6	53.2	57.3	57.3	55.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)