

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: P311730

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-S-CP125-W2A-U-5700K**

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: P311730
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-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (336) 5700K 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: 6396.0 lumens
Efficiency: N/A
Efficacy: 118.2 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

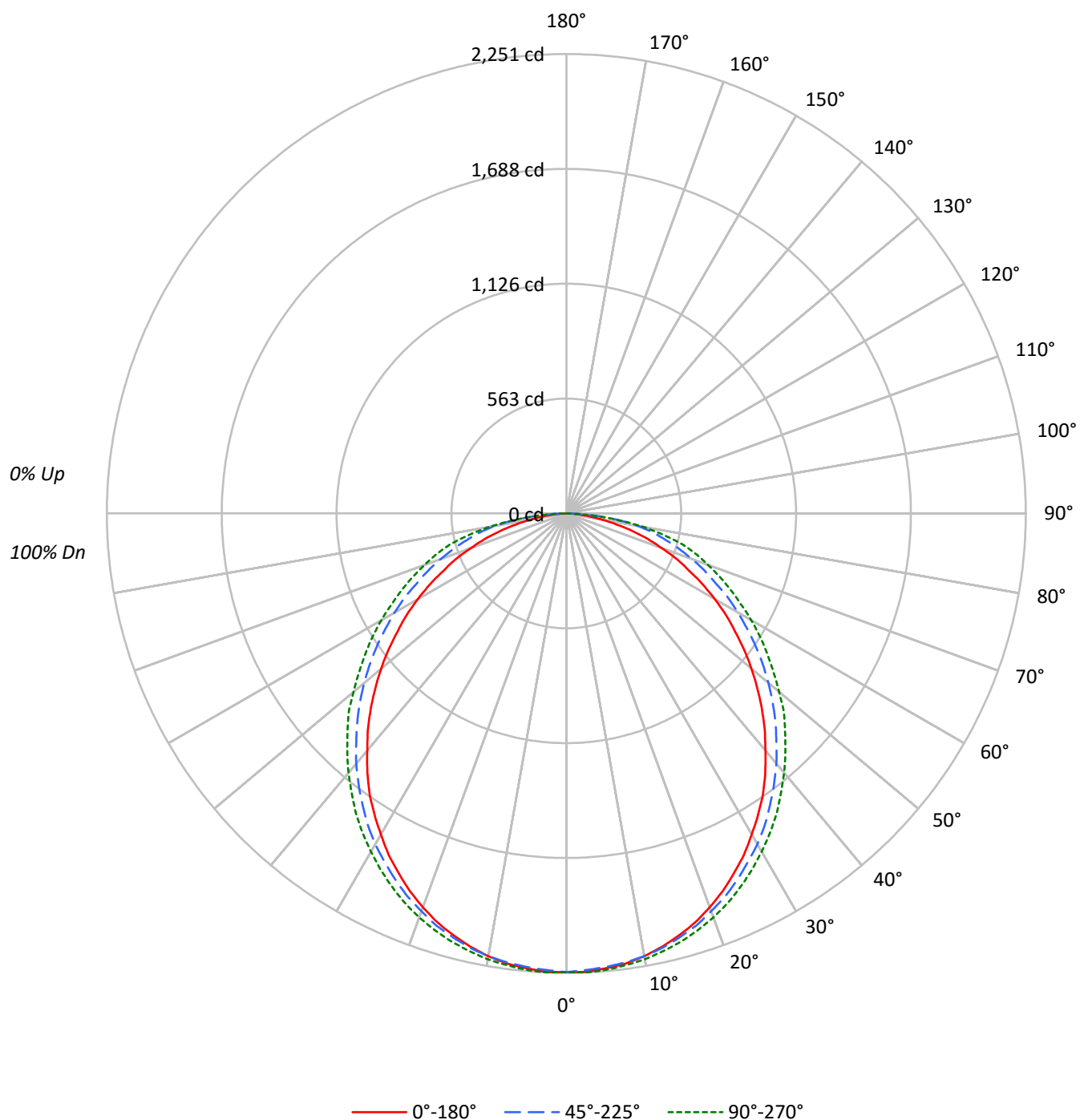
Input Watts (W): 54.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3023	3023	3023
5°	3021	3013	3032
10°	3009	3009	3031
15°	2980	2994	3025
20°	2941	2970	3017
25°	2886	2941	2998
30°	2822	2907	2973
35°	2760	2860	2950
40°	2666	2812	2915
45°	2578	2756	2884
50°	2479	2705	2849
55°	2369	2654	2821
60°	2258	2613	2816
65°	2115	2568	2833
70°	1958	2581	2909
75°	1753	2630	3073
80°	1416	2786	3006
85°	1067	2447	2384



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.7	3.3
10°-20°	607.8	9.5
20°-30°	913.7	14.3
30°-40°	1088.4	17.0
40°-50°	1113.9	17.4
50°-60°	1002.8	15.7
60°-70°	787.5	12.3
70°-80°	511.1	8.0
80°-90°	158.1	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°	1734.2	27.1
0°-40°	2822.6	44.1
0°-60°	4939.3	77.2
0°-90°	6396.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6396.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2247	2247	2247	2247	2247	
5°	2237	2241	2231	2243	2245	213
15°	2139	2145	2149	2168	2172	603
25°	1944	1960	1981	2013	2019	896
35°	1680	1700	1741	1784	1796	1048
45°	1355	1388	1448	1503	1516	1045
55°	1010	1054	1132	1190	1203	905
65°	664	715	806	874	890	661
75°	337	402	506	575	591	357
85°	69	128	158	154	154	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2247.0	2247.0	2247.0	2247.0	2247.0
2.5°	2249.0	2249.0	2238.8	2249.0	2251.0
5°	2236.8	2240.9	2230.7	2242.9	2244.9
7.5°	2224.6	2224.6	2218.5	2230.7	2232.7
10°	2202.3	2204.3	2202.3	2216.5	2218.5
12.5°	2173.8	2177.9	2179.9	2194.1	2196.2
15°	2139.3	2145.4	2149.4	2167.7	2171.8
17.5°	2100.7	2106.8	2116.9	2137.2	2141.3
20°	2054.0	2062.1	2074.3	2100.7	2106.8
22.5°	2003.2	2011.3	2031.6	2056.0	2066.1
25°	1944.2	1960.5	1980.8	2013.3	2019.4
27.5°	1885.3	1899.6	1926.0	1960.5	1968.6
30°	1816.3	1838.6	1871.1	1905.6	1913.8
32.5°	1749.2	1771.6	1810.2	1846.7	1856.9
35°	1680.1	1700.5	1741.1	1783.8	1795.9
37.5°	1600.9	1627.3	1672.0	1714.7	1726.9
40°	1517.6	1550.1	1600.9	1645.6	1659.8
42.5°	1438.4	1472.9	1523.7	1572.5	1588.7
45°	1355.1	1387.6	1448.5	1503.4	1515.6
47.5°	1269.8	1306.3	1371.3	1426.2	1446.5
50°	1184.4	1223.0	1292.1	1349.0	1361.2
52.5°	1099.1	1139.7	1212.9	1273.8	1279.9
55°	1009.7	1054.4	1131.6	1190.5	1202.7
57.5°	928.4	967.0	1050.3	1111.3	1125.5
60°	839.1	881.7	971.1	1028.0	1046.3
62.5°	753.7	798.4	891.9	948.8	965.0
65°	664.3	715.1	806.5	873.6	889.8
67.5°	587.1	635.9	733.4	798.4	814.7
70°	497.7	552.6	656.2	723.3	739.5
72.5°	420.5	477.4	581.0	646.1	670.4
75°	337.2	402.3	505.9	574.9	591.2
77.5°	256.0	331.2	436.8	489.6	489.6
80°	182.8	262.1	359.6	384.0	388.0
82.5°	119.9	197.1	266.1	264.1	264.1
85°	69.1	128.0	158.5	154.4	154.4
87.5°	26.4	52.8	56.9	56.9	54.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)