

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: P311042

Luminaire Tested: **24FCZ2-65HE-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: P311042
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: 24FCZ2-65HE-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: 5943.0 lumens
Efficiency: N/A
Efficacy: 111.7 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

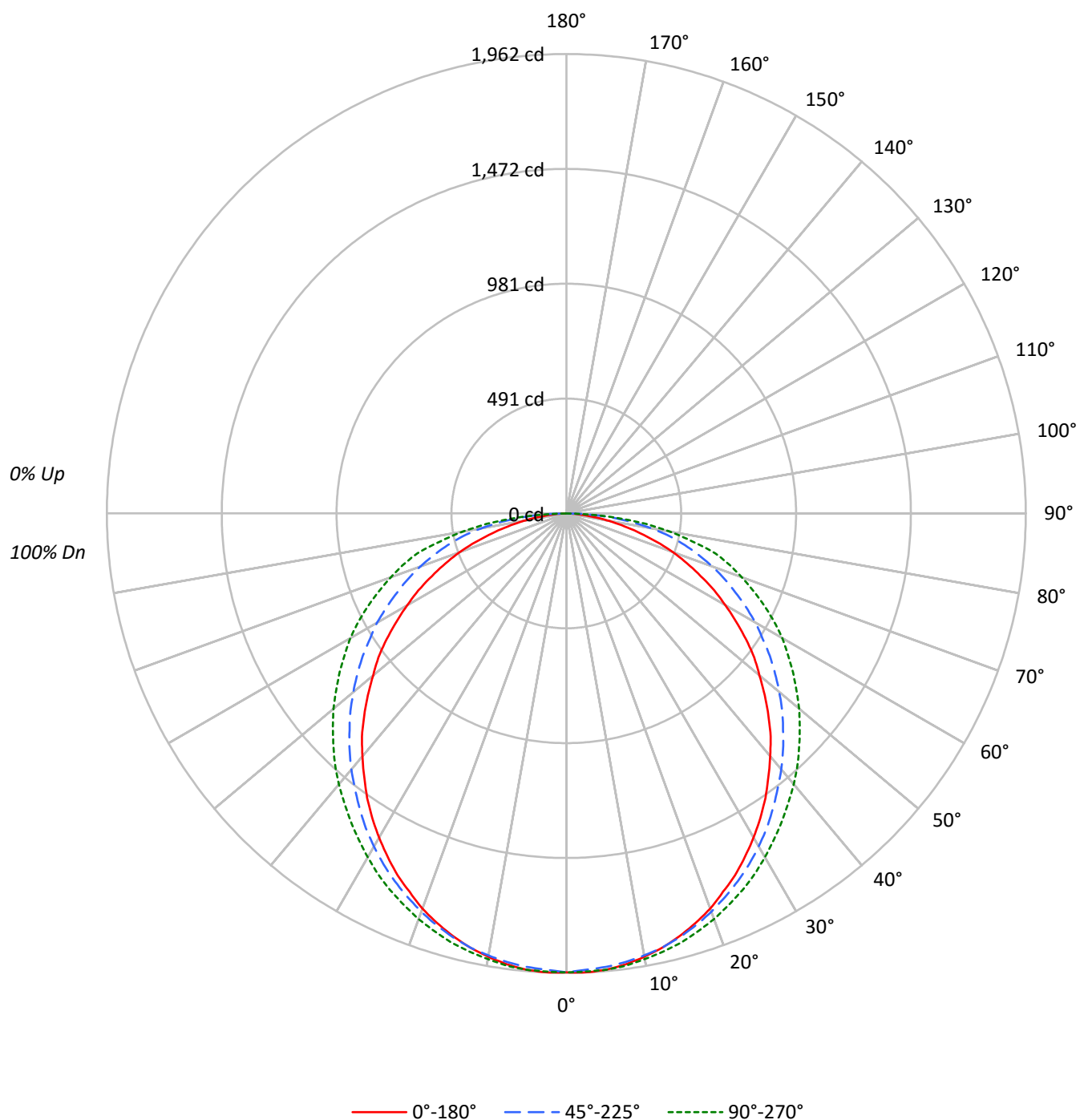
Input Watts (W): 53.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2637	2637	2637
5°	2642	2626	2642
10°	2627	2619	2640
15°	2604	2609	2642
20°	2572	2592	2640
25°	2532	2573	2638
30°	2484	2552	2635
35°	2436	2526	2636
40°	2379	2507	2653
45°	2322	2491	2675
50°	2254	2485	2716
55°	2197	2488	2771
60°	2112	2510	2865
65°	2015	2536	2969
70°	1908	2614	3134
75°	1701	2727	3424
80°	1451	2888	3498
85°	1034	2861	3348



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.5	3.1
10°-20°	530.4	8.9
20°-30°	801.1	13.5
30°-40°	965.5	16.2
40°-50°	1013.6	17.1
50°-60°	948.3	16.0
60°-70°	783.1	13.2
70°-80°	533.6	9.0
80°-90°	182.0	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°	1516.9	25.5
0°-40°	2482.4	41.8
0°-60°	4444.3	74.8
0°-90°	5943.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5943.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1960	1960	1960	1960	1960	
5°	1956	1954	1944	1956	1956	186
15°	1869	1871	1873	1893	1897	527
25°	1706	1714	1733	1767	1777	785
35°	1483	1499	1538	1589	1605	927
45°	1220	1246	1309	1380	1406	941
55°	937	974	1061	1148	1181	836
65°	633	686	797	897	933	628
75°	327	402	524	623	659	349
85°	67	132	185	209	217	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1959.9	1959.9	1959.9	1959.9	1959.9
2.5°	1961.9	1959.9	1950.1	1959.9	1958.0
5°	1956.0	1954.0	1944.2	1956.0	1956.0
7.5°	1942.2	1942.2	1932.3	1946.1	1948.1
10°	1922.5	1922.5	1916.6	1932.3	1932.3
12.5°	1898.8	1898.8	1898.8	1914.6	1916.6
15°	1869.2	1871.2	1873.2	1892.9	1896.9
17.5°	1833.8	1837.7	1843.6	1867.3	1871.2
20°	1796.3	1800.2	1810.1	1837.7	1843.6
22.5°	1749.0	1758.8	1772.6	1804.2	1810.1
25°	1705.6	1713.5	1733.2	1766.7	1776.6
27.5°	1652.4	1664.2	1689.8	1725.3	1739.1
30°	1599.1	1610.9	1642.5	1683.9	1695.7
32.5°	1541.9	1559.7	1593.2	1636.6	1650.4
35°	1482.8	1498.6	1538.0	1589.3	1605.0
37.5°	1417.7	1439.4	1482.8	1538.0	1557.7
40°	1354.6	1378.3	1427.6	1486.7	1510.4
42.5°	1291.5	1315.2	1370.4	1437.4	1461.1
45°	1220.5	1246.2	1309.3	1380.2	1405.9
47.5°	1149.5	1181.1	1250.1	1325.0	1352.6
50°	1076.6	1112.1	1187.0	1265.9	1297.4
52.5°	1011.5	1045.0	1123.9	1208.7	1238.3
55°	936.6	974.1	1060.8	1147.6	1181.1
57.5°	859.7	901.1	993.8	1088.4	1121.9
60°	784.8	830.1	932.7	1027.3	1064.8
62.5°	711.8	757.2	863.6	962.2	999.7
65°	632.9	686.2	796.6	897.2	932.7
67.5°	558.0	615.2	731.5	830.1	865.6
70°	485.1	540.3	664.5	761.1	796.6
72.5°	406.2	469.3	593.5	694.1	731.5
75°	327.3	402.2	524.5	623.1	658.6
77.5°	254.4	331.3	453.5	534.4	552.1
80°	187.3	266.2	372.7	429.8	451.5
82.5°	120.3	199.1	283.9	325.3	343.1
85°	67.0	132.1	185.3	209.0	216.9
87.5°	27.6	57.2	74.9	84.8	84.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)