

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: P311073

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-CP250-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: P311073
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-CP250-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" 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: 5782.0 lumens
Efficiency: N/A
Efficacy: 106.9 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

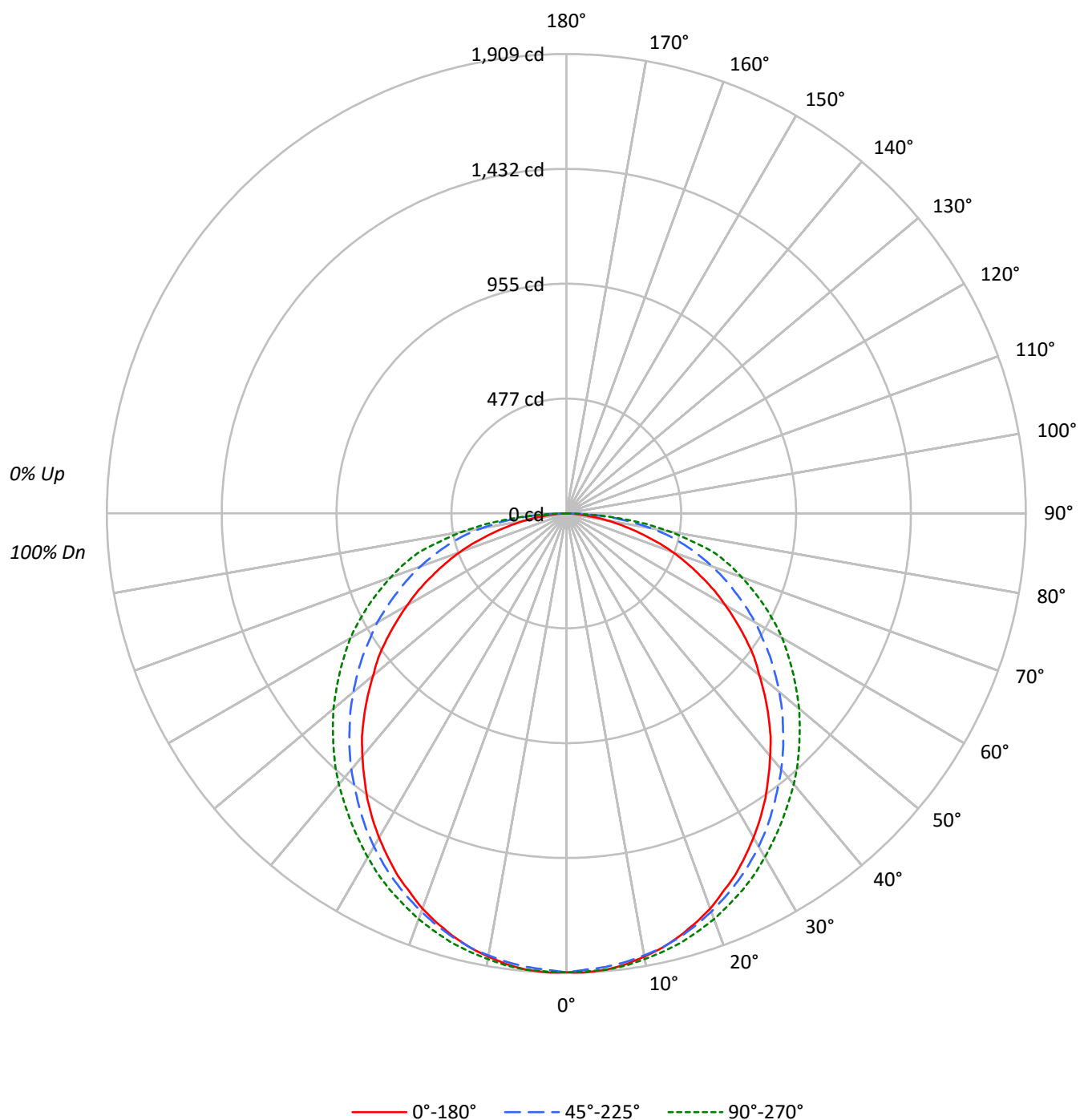
Input Watts (W): 54.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2566	2566	2566
5°	2570	2555	2570
10°	2555	2548	2569
15°	2533	2539	2571
20°	2502	2522	2568
25°	2464	2503	2566
30°	2417	2483	2563
35°	2370	2458	2565
40°	2315	2439	2581
45°	2260	2424	2603
50°	2192	2417	2642
55°	2137	2421	2696
60°	2055	2442	2788
65°	1961	2467	2889
70°	1856	2543	3049
75°	1655	2653	3331
80°	1412	2810	3404
85°	1007	2783	3257



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.5	3.1
10°-20°	516.0	8.9
20°-30°	779.4	13.5
30°-40°	939.3	16.2
40°-50°	986.1	17.1
50°-60°	922.6	16.0
60°-70°	761.9	13.2
70°-80°	519.2	9.0
80°-90°	177.0	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°	1475.9	25.5
0°-40°	2415.2	41.8
0°-60°	4323.9	74.8
0°-90°	5782.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5782.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1907	1907	1907	1907	1907	
5°	1903	1901	1892	1903	1903	181
15°	1819	1820	1822	1842	1846	513
25°	1659	1667	1686	1719	1728	763
35°	1443	1458	1496	1546	1562	902
45°	1188	1212	1274	1343	1368	916
55°	911	948	1032	1116	1149	813
65°	616	668	775	873	907	611
75°	318	391	510	606	641	340
85°	65	128	180	203	211	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1906.9	1906.9	1906.9	1906.9	1906.9
2.5°	1908.8	1906.9	1897.3	1906.9	1904.9
5°	1903.0	1901.1	1891.5	1903.0	1903.0
7.5°	1889.6	1889.6	1880.0	1893.4	1895.3
10°	1870.4	1870.4	1864.6	1880.0	1880.0
12.5°	1847.4	1847.4	1847.4	1862.7	1864.6
15°	1818.6	1820.5	1822.4	1841.6	1845.5
17.5°	1784.1	1787.9	1793.7	1816.7	1820.5
20°	1747.6	1751.5	1761.1	1787.9	1793.7
22.5°	1701.6	1711.2	1724.6	1755.3	1761.1
25°	1659.4	1667.1	1686.2	1718.9	1728.4
27.5°	1607.6	1619.1	1644.0	1678.6	1692.0
30°	1555.8	1567.3	1598.0	1638.3	1649.8
32.5°	1500.2	1517.4	1550.0	1592.2	1605.7
35°	1442.6	1458.0	1496.3	1546.2	1561.5
37.5°	1379.3	1400.4	1442.6	1496.3	1515.5
40°	1317.9	1340.9	1388.9	1446.4	1469.5
42.5°	1256.5	1279.5	1333.3	1398.5	1421.5
45°	1187.5	1212.4	1273.8	1342.9	1367.8
47.5°	1118.4	1149.1	1216.2	1289.1	1316.0
50°	1047.4	1082.0	1154.9	1231.6	1262.3
52.5°	984.1	1016.7	1093.5	1176.0	1204.7
55°	911.2	947.7	1032.1	1116.5	1149.1
57.5°	836.4	876.7	966.9	1058.9	1091.5
60°	763.5	807.6	907.4	999.5	1035.9
62.5°	692.5	736.7	840.2	936.2	972.6
65°	615.8	667.6	775.0	872.9	907.4
67.5°	542.9	598.5	711.7	807.6	842.2
70°	471.9	525.6	646.5	740.5	775.0
72.5°	395.2	456.6	577.4	675.3	711.7
75°	318.4	391.3	510.3	606.2	640.7
77.5°	247.5	322.3	441.2	519.9	537.1
80°	182.2	259.0	362.6	418.2	439.3
82.5°	117.0	193.8	276.2	316.5	333.8
85°	65.2	128.5	180.3	203.3	211.0
87.5°	26.9	55.6	72.9	82.5	82.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)