

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: P310892

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-CP250-W2A-U-5500K**

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: P310892
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: 24FCZ2-50HE-UNV-L82765-CP250-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (336) 5500K 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: 4434.0 lumens
Efficiency: N/A
Efficacy: 112.3 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

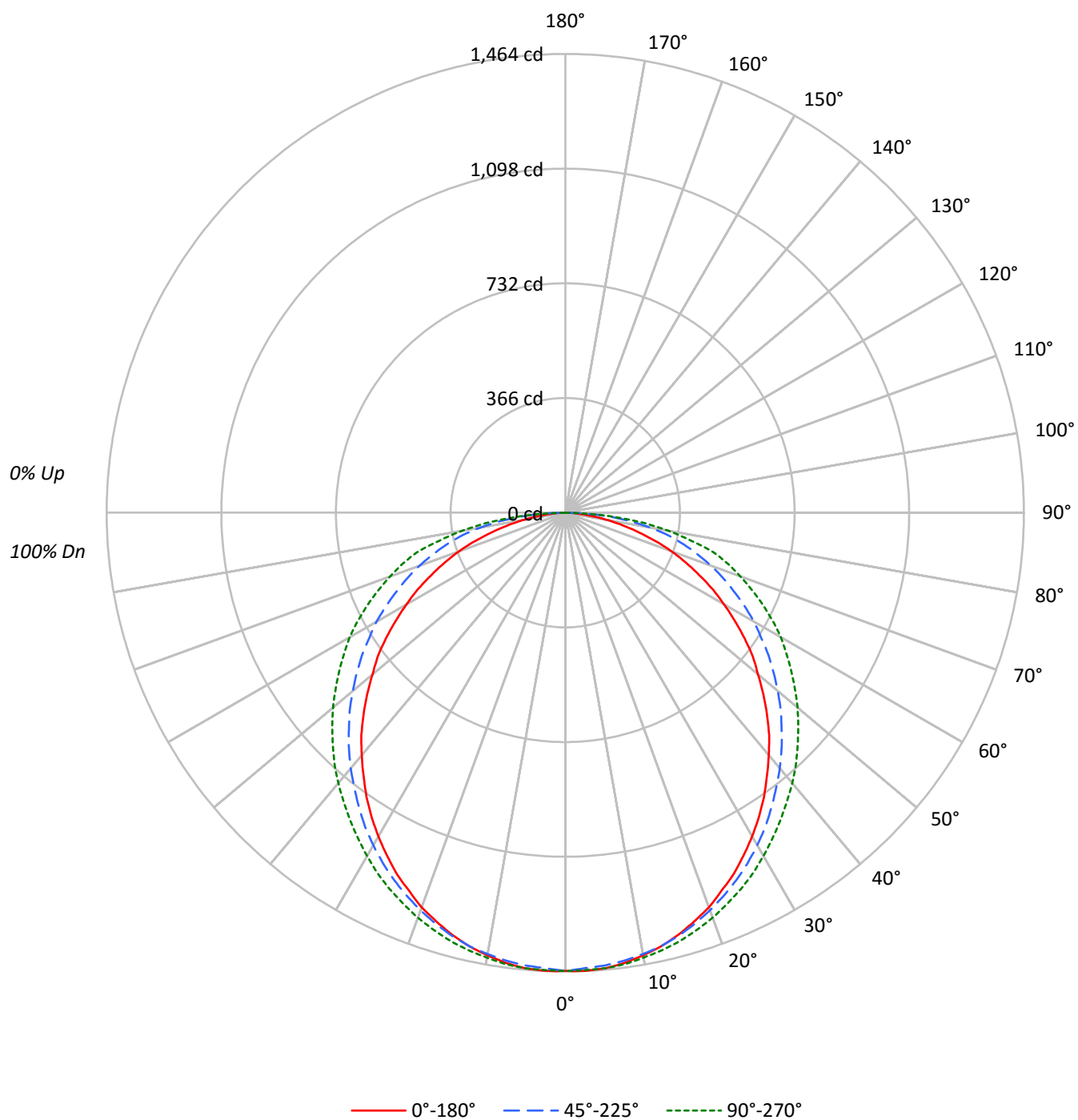
Input Watts (W): 39.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1968	1968	1968
5°	1971	1959	1971
10°	1960	1954	1970
15°	1943	1947	1971
20°	1919	1934	1969
25°	1889	1920	1968
30°	1854	1904	1966
35°	1817	1885	1967
40°	1775	1871	1979
45°	1733	1859	1996
50°	1681	1854	2026
55°	1639	1857	2067
60°	1576	1872	2138
65°	1503	1892	2215
70°	1424	1950	2338
75°	1269	2034	2555
80°	1083	2154	2610
85°	772	2135	2498



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.4	3.1
10°-20°	395.7	8.9
20°-30°	597.7	13.5
30°-40°	720.3	16.2
40°-50°	756.2	17.1
50°-60°	707.5	16.0
60°-70°	584.3	13.2
70°-80°	398.1	9.0
80°-90°	135.8	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°	1131.8	25.5
0°-40°	1852.1	41.8
0°-60°	3315.8	74.8
0°-90°	4434.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4434.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1462	1462	1462	1462	1462	
5°	1459	1458	1450	1459	1459	138
15°	1395	1396	1398	1412	1415	393
25°	1272	1278	1293	1318	1326	585
35°	1106	1118	1148	1186	1198	691
45°	911	930	977	1030	1049	702
55°	699	727	792	856	881	624
65°	472	512	594	669	696	468
75°	244	300	391	465	491	260
85°	50	99	138	156	162	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1462.3	1462.3	1462.3	1462.3	1462.3
2.5°	1463.8	1462.3	1454.9	1462.3	1460.8
5°	1459.4	1457.9	1450.5	1459.4	1459.4
7.5°	1449.1	1449.1	1441.7	1452.0	1453.5
10°	1434.3	1434.3	1429.9	1441.7	1441.7
12.5°	1416.7	1416.7	1416.7	1428.5	1429.9
15°	1394.6	1396.1	1397.6	1412.3	1415.2
17.5°	1368.1	1371.1	1375.5	1393.2	1396.1
20°	1340.2	1343.1	1350.5	1371.1	1375.5
22.5°	1304.9	1312.2	1322.5	1346.1	1350.5
25°	1272.5	1278.4	1293.1	1318.1	1325.5
27.5°	1232.8	1241.6	1260.8	1287.2	1297.5
30°	1193.1	1201.9	1225.4	1256.3	1265.2
32.5°	1150.4	1163.7	1188.7	1221.0	1231.3
35°	1106.3	1118.1	1147.5	1185.7	1197.5
37.5°	1057.7	1073.9	1106.3	1147.5	1162.2
40°	1010.7	1028.3	1065.1	1109.2	1126.9
42.5°	963.6	981.2	1022.4	1072.4	1090.1
45°	910.6	929.7	976.8	1029.8	1048.9
47.5°	857.7	881.2	932.7	988.6	1009.2
50°	803.2	829.7	885.6	944.5	968.0
52.5°	754.7	779.7	838.5	901.8	923.9
55°	698.8	726.7	791.5	856.2	881.2
57.5°	641.4	672.3	741.4	812.1	837.1
60°	585.5	619.3	695.8	766.5	794.4
62.5°	531.1	564.9	644.4	717.9	745.9
65°	472.2	512.0	594.3	669.4	695.8
67.5°	416.3	459.0	545.8	619.3	645.8
70°	361.9	403.1	495.8	567.9	594.3
72.5°	303.1	350.1	442.8	517.8	545.8
75°	244.2	300.1	391.3	464.9	491.4
77.5°	189.8	247.1	338.4	398.7	411.9
80°	139.8	198.6	278.0	320.7	336.9
82.5°	89.7	148.6	211.8	242.7	256.0
85°	50.0	98.6	138.3	155.9	161.8
87.5°	20.6	42.7	55.9	63.3	63.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)