

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: P311362

Luminaire Tested: **24FCZ2-40HE-UNV-L82765-S-CA125-W2A-U-6500K**

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: P311362
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: 24FCZ2-40HE-UNV-L82765-S-CA125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 6500K 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: 4075.0 lumens
Efficiency: N/A
Efficacy: 128.1 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

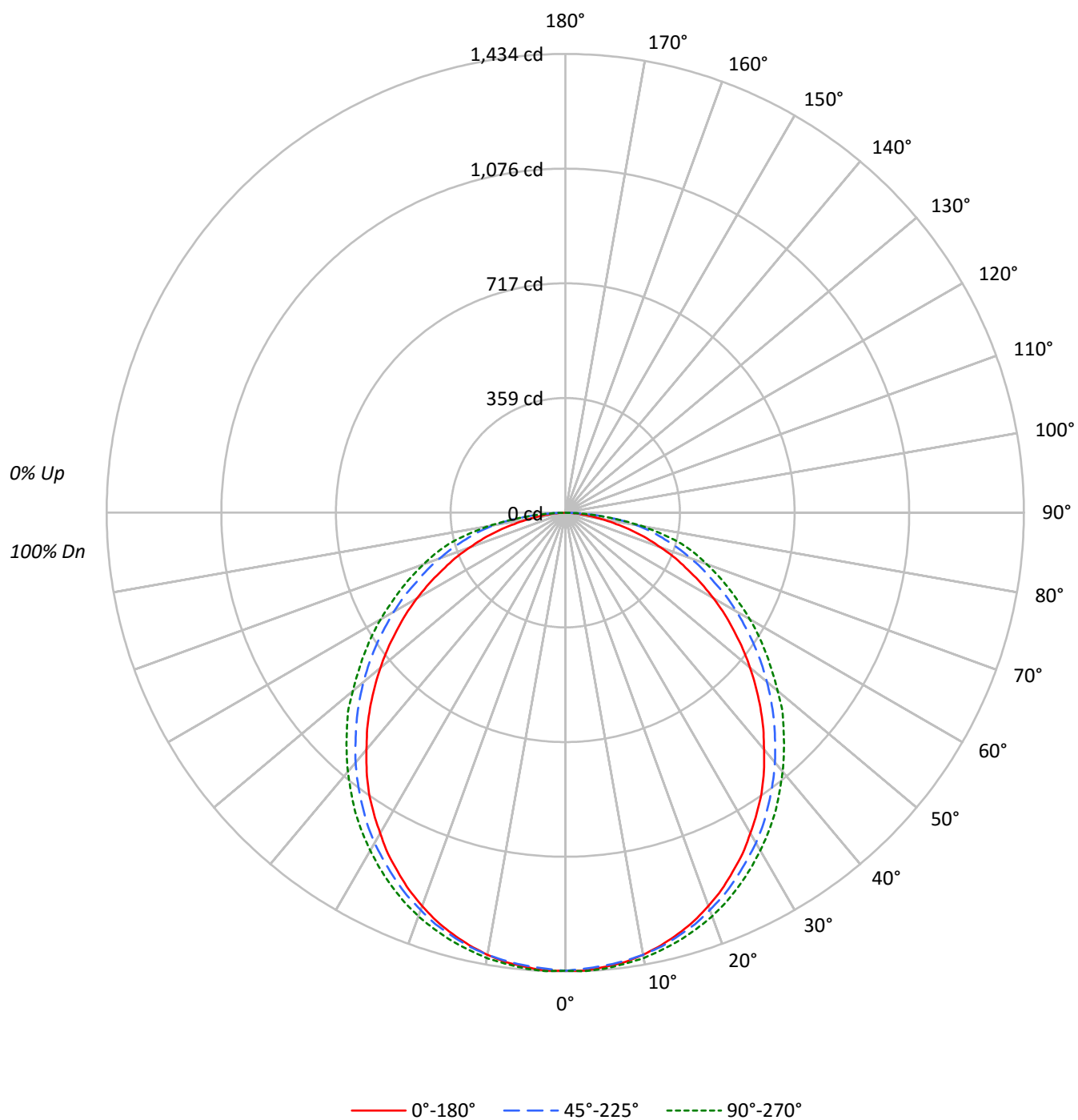
Input Watts (W): 31.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1926	1926	1926
5°	1925	1920	1932
10°	1917	1917	1931
15°	1899	1908	1927
20°	1874	1892	1922
25°	1839	1874	1910
30°	1798	1852	1894
35°	1758	1822	1879
40°	1698	1792	1857
45°	1643	1756	1837
50°	1580	1723	1815
55°	1509	1691	1798
60°	1439	1665	1794
65°	1348	1636	1805
70°	1247	1645	1854
75°	1117	1675	1958
80°	903	1775	1915
85°	679	1559	1519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.5	3.3
10°-20°	387.3	9.5
20°-30°	582.1	14.3
30°-40°	693.4	17.0
40°-50°	709.7	17.4
50°-60°	638.9	15.7
60°-70°	501.8	12.3
70°-80°	325.6	8.0
80°-90°	100.7	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°	1104.9	27.1
0°-40°	1798.3	44.1
0°-60°	3146.9	77.2
0°-90°	4075.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4075.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1432	1432	1432	1432	1432	
5°	1425	1428	1421	1429	1430	135
15°	1363	1367	1369	1381	1384	384
25°	1239	1249	1262	1283	1287	571
35°	1070	1083	1109	1136	1144	668
45°	863	884	923	958	966	666
55°	643	672	721	758	766	577
65°	423	456	514	557	567	421
75°	215	256	322	366	377	227
85°	44	82	101	98	98	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1431.6	1431.6	1431.6	1431.6	1431.6
2.5°	1432.9	1432.9	1426.4	1432.9	1434.2
5°	1425.1	1427.7	1421.2	1429.0	1430.3
7.5°	1417.3	1417.3	1413.5	1421.2	1422.5
10°	1403.1	1404.4	1403.1	1412.2	1413.5
12.5°	1385.0	1387.6	1388.9	1397.9	1399.2
15°	1363.0	1366.9	1369.4	1381.1	1383.7
17.5°	1338.4	1342.3	1348.7	1361.7	1364.3
20°	1308.6	1313.8	1321.6	1338.4	1342.3
22.5°	1276.2	1281.4	1294.4	1309.9	1316.4
25°	1238.7	1249.1	1262.0	1282.7	1286.6
27.5°	1201.2	1210.2	1227.1	1249.1	1254.2
30°	1157.2	1171.4	1192.1	1214.1	1219.3
32.5°	1114.5	1128.7	1153.3	1176.6	1183.1
35°	1070.4	1083.4	1109.3	1136.5	1144.2
37.5°	1020.0	1036.8	1065.3	1092.4	1100.2
40°	966.9	987.6	1020.0	1048.4	1057.5
42.5°	916.4	938.4	970.8	1001.8	1012.2
45°	863.3	884.1	922.9	957.8	965.6
47.5°	809.0	832.3	873.7	908.6	921.6
50°	754.6	779.2	823.2	859.5	867.2
52.5°	700.3	726.1	772.7	811.6	815.5
55°	643.3	671.8	721.0	758.5	766.3
57.5°	591.5	616.1	669.2	708.0	717.1
60°	534.6	561.8	618.7	655.0	666.6
62.5°	480.2	508.7	568.2	604.5	614.8
65°	423.3	455.6	513.9	556.6	566.9
67.5°	374.1	405.1	467.3	508.7	519.0
70°	317.1	352.1	418.1	460.8	471.2
72.5°	267.9	304.2	370.2	411.6	427.1
75°	214.9	256.3	322.3	366.3	376.7
77.5°	163.1	211.0	278.3	311.9	311.9
80°	116.5	167.0	229.1	244.6	247.2
82.5°	76.4	125.6	169.6	168.3	168.3
85°	44.0	81.5	101.0	98.4	98.4
87.5°	16.8	33.7	36.2	36.2	34.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)