

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: P310963

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CP125-W2A-U-5000K**

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: P310963
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: 24FCZ2-55HE-UNV-L82765-CP125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 5000K 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: 5105.0 lumens
Efficiency: N/A
Efficacy: 115.8 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

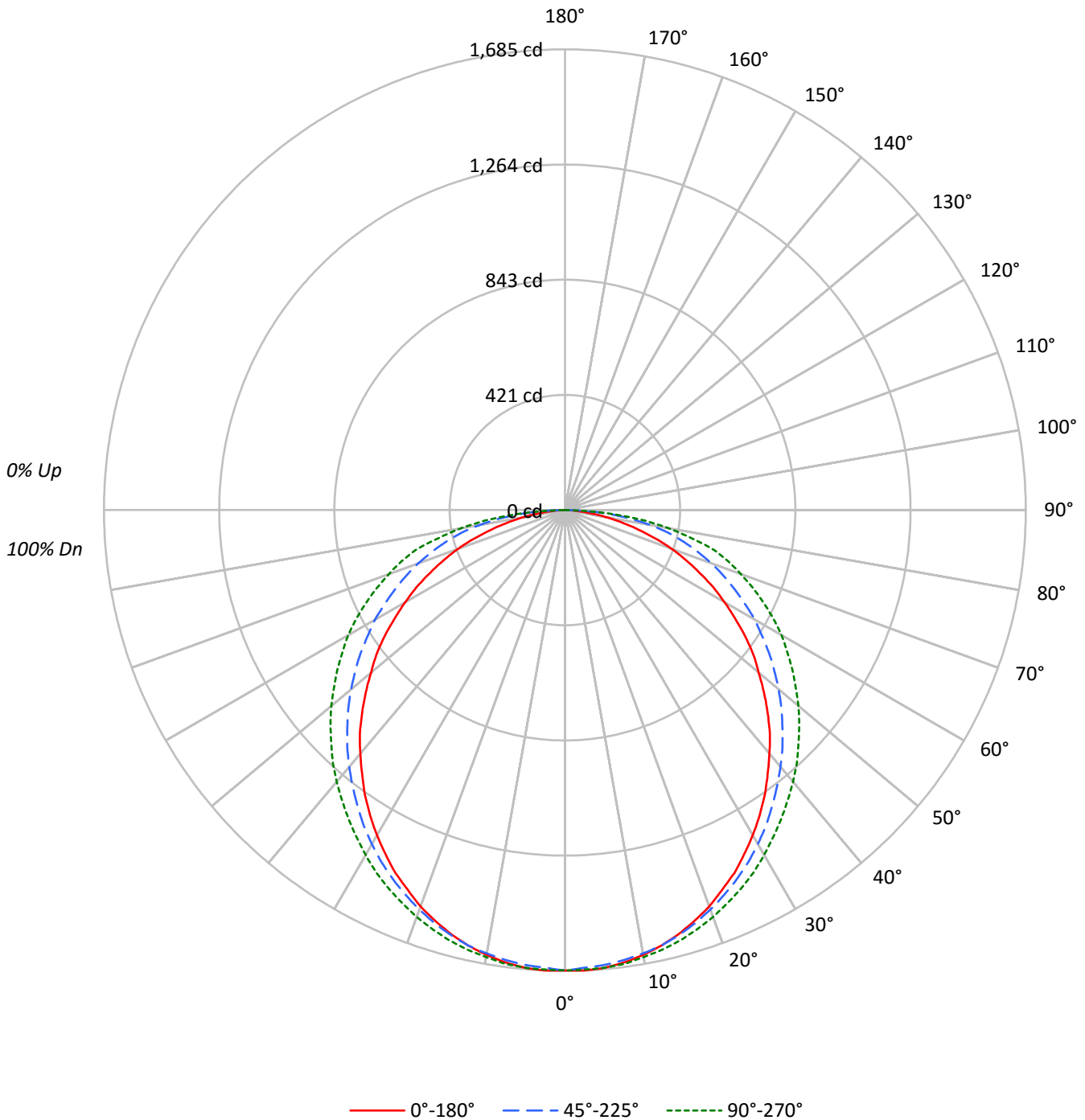
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	108	103	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2265	2265	2265
5°	2269	2256	2269
10°	2256	2249	2268
15°	2237	2241	2270
20°	2209	2226	2268
25°	2175	2210	2266
30°	2134	2192	2263
35°	2092	2170	2265
40°	2044	2154	2279
45°	1995	2140	2298
50°	1936	2134	2333
55°	1887	2137	2380
60°	1814	2156	2461
65°	1731	2179	2550
70°	1639	2245	2692
75°	1462	2342	2941
80°	1247	2480	3006
85°	889	2458	2876



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.3	3.1
10°-20°	455.6	8.9
20°-30°	688.1	13.5
30°-40°	829.3	16.2
40°-50°	870.7	17.1
50°-60°	814.5	16.0
60°-70°	672.7	13.2
70°-80°	458.4	9.0
80°-90°	156.3	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°	1303.1	25.5
0°-40°	2132.4	41.8
0°-60°	3817.6	74.8
0°-90°	5105.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5105.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1684	1684	1684	1684	1684	
5°	1680	1678	1670	1680	1680	159
15°	1606	1607	1609	1626	1629	453
25°	1465	1472	1489	1518	1526	674
35°	1274	1287	1321	1365	1379	796
45°	1048	1070	1125	1186	1208	809
55°	804	837	911	986	1015	718
65°	544	589	684	771	801	539
75°	281	346	450	535	566	300
85°	58	114	159	180	186	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1683.6	1683.6	1683.6	1683.6	1683.6
2.5°	1685.3	1683.6	1675.1	1683.6	1681.9
5°	1680.2	1678.5	1670.0	1680.2	1680.2
7.5°	1668.3	1668.3	1659.9	1671.7	1673.4
10°	1651.4	1651.4	1646.3	1659.9	1659.9
12.5°	1631.1	1631.1	1631.1	1644.6	1646.3
15°	1605.7	1607.4	1609.1	1626.0	1629.4
17.5°	1575.2	1578.6	1583.7	1604.0	1607.4
20°	1543.0	1546.4	1554.9	1578.6	1583.7
22.5°	1502.4	1510.8	1522.7	1549.8	1554.9
25°	1465.1	1471.9	1488.8	1517.6	1526.1
27.5°	1419.4	1429.5	1451.5	1482.0	1493.9
30°	1373.6	1383.8	1410.9	1446.5	1456.6
32.5°	1324.5	1339.8	1368.5	1405.8	1417.7
35°	1273.7	1287.2	1321.1	1365.2	1378.7
37.5°	1217.8	1236.4	1273.7	1321.1	1338.1
40°	1163.6	1183.9	1226.3	1277.1	1297.4
42.5°	1109.4	1129.7	1177.2	1234.7	1255.1
45°	1048.4	1070.4	1124.6	1185.6	1207.6
47.5°	987.5	1014.6	1073.8	1138.2	1161.9
50°	924.8	955.3	1019.6	1087.4	1114.5
52.5°	868.9	897.7	965.4	1038.3	1063.7
55°	804.5	836.7	911.2	985.8	1014.6
57.5°	738.5	774.0	853.6	934.9	963.7
60°	674.1	713.1	801.1	882.4	914.6
62.5°	611.4	650.4	741.9	826.5	858.7
65°	543.7	589.4	684.3	770.7	801.1
67.5°	479.3	528.4	628.4	713.1	743.6
70°	416.7	464.1	570.8	653.8	684.3
72.5°	348.9	403.1	509.8	596.2	628.4
75°	281.2	345.5	450.5	535.2	565.7
77.5°	218.5	284.5	389.6	459.0	474.2
80°	160.9	228.7	320.1	369.2	387.9
82.5°	103.3	171.1	243.9	279.5	294.7
85°	57.6	113.5	159.2	179.5	186.3
87.5°	23.7	49.1	64.4	72.8	72.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)