

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: P310961

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CP125-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: P310961
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-4000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 4949.0 lumens
Efficiency: N/A
Efficacy: 113.5 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

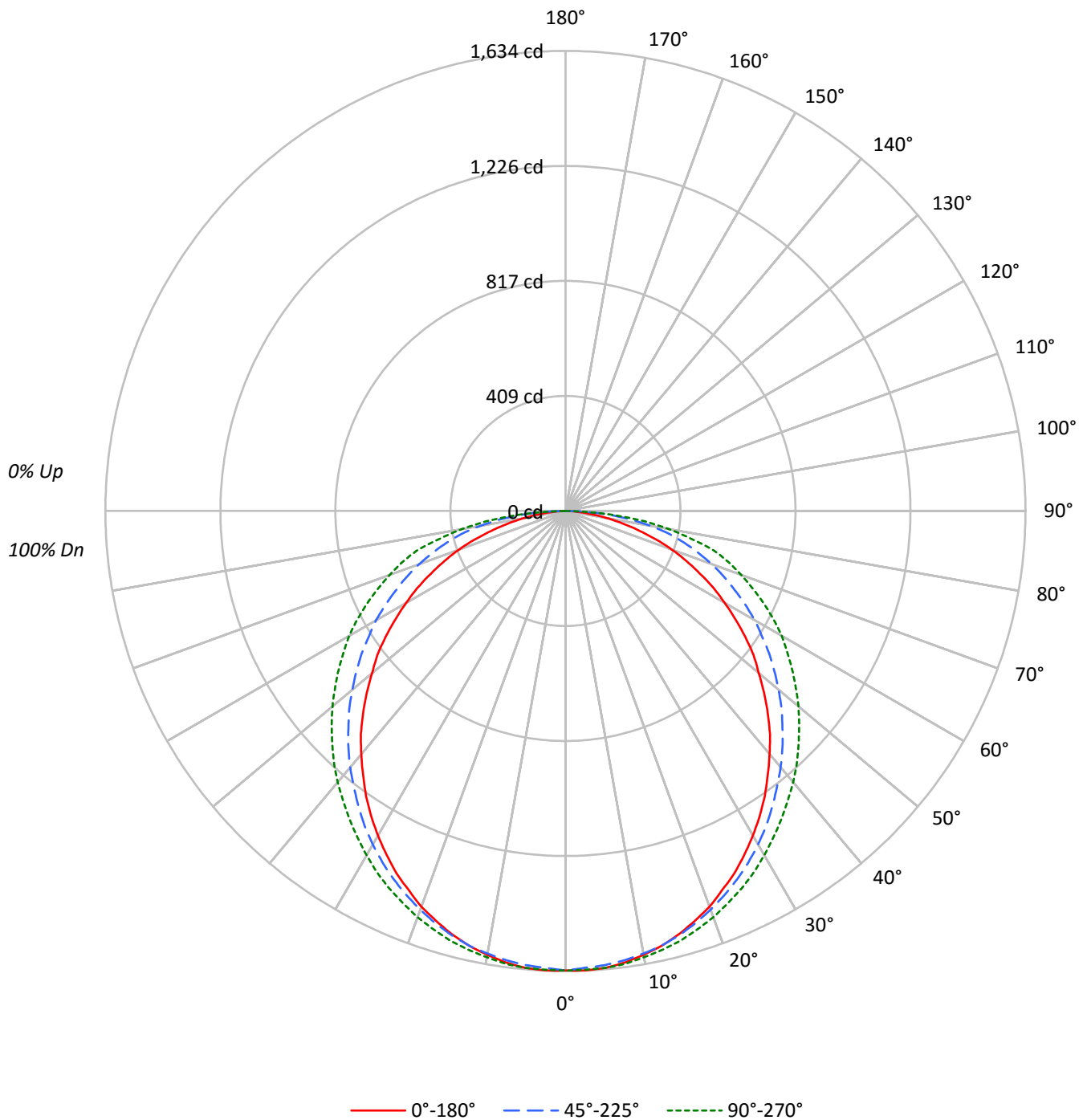
Input Watts (W): 43.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2196	2196	2196
5°	2200	2187	2200
10°	2187	2181	2198
15°	2168	2173	2200
20°	2142	2158	2198
25°	2109	2143	2196
30°	2069	2125	2194
35°	2028	2104	2195
40°	1981	2088	2209
45°	1934	2075	2228
50°	1877	2069	2262
55°	1829	2072	2307
60°	1759	2090	2386
65°	1678	2112	2473
70°	1589	2177	2610
75°	1417	2271	2851
80°	1209	2404	2913
85°	861	2382	2788



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.5	3.1
10°-20°	441.7	8.9
20°-30°	667.1	13.5
30°-40°	804.0	16.2
40°-50°	844.1	17.1
50°-60°	789.7	16.0
60°-70°	652.1	13.2
70°-80°	444.4	9.0
80°-90°	151.5	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°	1263.2	25.5
0°-40°	2067.2	41.8
0°-60°	3701.0	74.8
0°-90°	4949.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4949.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1632	1632	1632	1632	1632	
5°	1629	1627	1619	1629	1629	155
15°	1557	1558	1560	1576	1580	439
25°	1420	1427	1443	1471	1479	654
35°	1235	1248	1281	1323	1337	772
45°	1016	1038	1090	1149	1171	784
55°	780	811	883	956	984	696
65°	527	571	663	747	777	523
75°	273	335	437	519	548	291
85°	56	110	154	174	181	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1632.1	1632.1	1632.1	1632.1	1632.1
2.5°	1633.8	1632.1	1623.9	1632.1	1630.5
5°	1628.9	1627.2	1619.0	1628.9	1628.9
7.5°	1617.4	1617.4	1609.1	1620.6	1622.3
10°	1600.9	1600.9	1596.0	1609.1	1609.1
12.5°	1581.2	1581.2	1581.2	1594.4	1596.0
15°	1556.6	1558.2	1559.9	1576.3	1579.6
17.5°	1527.0	1530.3	1535.3	1555.0	1558.2
20°	1495.9	1499.1	1507.3	1530.3	1535.3
22.5°	1456.4	1464.7	1476.1	1502.4	1507.3
25°	1420.3	1426.9	1443.3	1471.2	1479.4
27.5°	1376.0	1385.8	1407.2	1436.7	1448.2
30°	1331.7	1341.5	1367.8	1402.3	1412.1
32.5°	1284.0	1298.8	1326.7	1362.9	1374.3
35°	1234.8	1247.9	1280.8	1323.4	1336.6
37.5°	1180.6	1198.7	1234.8	1280.8	1297.2
40°	1128.0	1147.8	1188.8	1238.1	1257.8
42.5°	1075.5	1095.2	1141.2	1197.0	1216.7
45°	1016.4	1037.7	1090.3	1149.4	1170.7
47.5°	957.3	983.6	1041.0	1103.4	1126.4
50°	896.5	926.1	988.5	1054.2	1080.4
52.5°	842.3	870.3	935.9	1006.5	1031.2
55°	779.9	811.1	883.4	955.6	983.6
57.5°	715.9	750.4	827.6	906.4	934.3
60°	653.5	691.3	776.7	855.5	886.7
62.5°	592.8	630.5	719.2	801.3	832.5
65°	527.1	571.4	663.4	747.1	776.7
67.5°	464.7	512.3	609.2	691.3	720.8
70°	403.9	449.9	553.4	633.8	663.4
72.5°	338.2	390.8	494.2	578.0	609.2
75°	272.6	335.0	436.8	518.9	548.4
77.5°	211.8	275.9	377.7	445.0	459.8
80°	156.0	221.7	310.3	358.0	376.0
82.5°	100.2	165.8	236.4	270.9	285.7
85°	55.8	110.0	154.3	174.1	180.6
87.5°	23.0	47.6	62.4	70.6	70.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)