

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: P309599

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-HRP-CA125-W2A-U-2700K**

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: P309599
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-HRP-CA125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 2700K 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: 3520.0 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

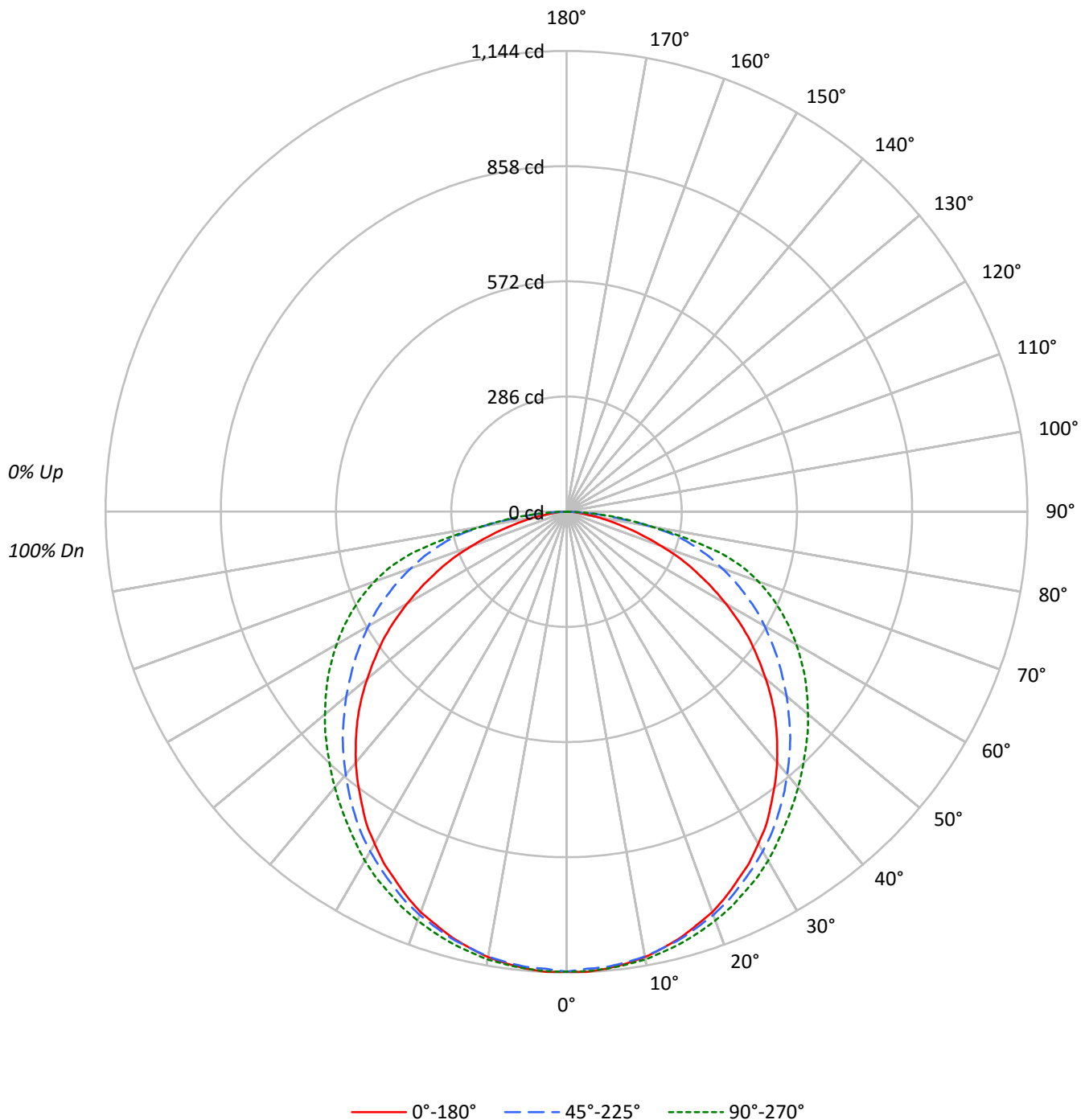
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	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	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1537	1537	1537
5°	1539	1533	1539
10°	1534	1532	1542
15°	1525	1529	1544
20°	1515	1525	1547
25°	1496	1518	1549
30°	1479	1513	1555
35°	1455	1506	1556
40°	1429	1496	1571
45°	1396	1494	1596
50°	1351	1493	1638
55°	1303	1504	1697
60°	1229	1527	1773
65°	1135	1562	1872
70°	991	1617	1994
75°	804	1700	2061
80°	594	1667	1667
85°	455	1229	1388



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.2	3.1
10°-20°	310.7	8.8
20°-30°	473.0	13.4
30°-40°	574.3	16.3
40°-50°	606.7	17.2
50°-60°	572.5	16.3
60°-70°	476.0	13.5
70°-80°	313.2	8.9
80°-90°	85.4	2.4
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°	891.8	25.3
0°-40°	1466.1	41.7
0°-60°	2645.4	75.2
0°-90°	3520.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3520.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1142	1142	1142	1142	1142	
5°	1139	1139	1135	1139	1139	108
15°	1095	1096	1098	1108	1108	309
25°	1008	1014	1023	1040	1043	465
35°	886	896	917	940	948	554
45°	734	749	785	824	838	565
55°	556	579	641	702	724	495
65°	357	398	491	563	588	353
75°	155	226	327	388	396	167
85°	30	65	80	88	90	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1142.1	1142.1	1142.1	1142.1	1142.1
2.5°	1143.5	1142.1	1136.2	1142.1	1142.1
5°	1139.1	1139.1	1134.7	1139.1	1139.1
7.5°	1131.8	1131.8	1128.8	1134.7	1134.7
10°	1122.9	1122.9	1121.4	1128.8	1128.8
12.5°	1109.6	1111.1	1109.6	1118.5	1118.5
15°	1094.9	1096.4	1097.9	1108.2	1108.2
17.5°	1075.8	1078.7	1081.6	1093.4	1094.9
20°	1058.1	1059.5	1065.4	1078.7	1080.2
22.5°	1034.5	1038.9	1046.3	1059.5	1064.0
25°	1008.0	1013.9	1022.7	1040.4	1043.3
27.5°	982.9	987.3	999.1	1018.3	1024.2
30°	952.0	959.3	974.1	993.2	1000.6
32.5°	922.5	929.9	947.5	968.2	974.1
35°	885.7	896.0	916.6	940.2	947.5
37.5°	850.3	860.6	885.7	912.2	921.0
40°	813.4	825.2	851.8	882.7	894.5
42.5°	773.7	789.9	819.3	853.2	866.5
45°	733.9	748.6	785.4	823.8	838.5
47.5°	691.1	708.8	748.6	794.3	812.0
50°	645.5	667.6	713.2	763.3	782.5
52.5°	599.8	624.8	676.4	732.4	753.0
55°	555.6	579.1	641.0	701.5	723.6
57.5°	506.9	536.4	604.2	669.0	691.1
60°	456.8	489.2	567.3	635.1	658.7
62.5°	406.7	443.6	532.0	599.8	624.8
65°	356.6	397.9	490.7	562.9	588.0
67.5°	308.0	353.7	452.4	524.6	549.7
70°	252.0	309.5	411.1	481.9	506.9
72.5°	200.4	266.7	371.4	437.7	459.8
75°	154.7	225.5	327.1	387.6	396.4
77.5°	113.5	184.2	281.5	302.1	303.6
80°	76.6	147.4	215.2	212.2	215.2
82.5°	50.1	110.5	135.6	151.8	153.3
85°	29.5	64.8	79.6	88.4	89.9
87.5°	14.7	22.1	28.0	29.5	32.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)