

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: P311271

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-S-CA125-W2A-U-5700K**

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: P311271
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: 24FCZ2-35HE-UNV-L82765-S-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5700K 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: 3512.0 lumens
Efficiency: N/A
Efficacy: 131.5 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

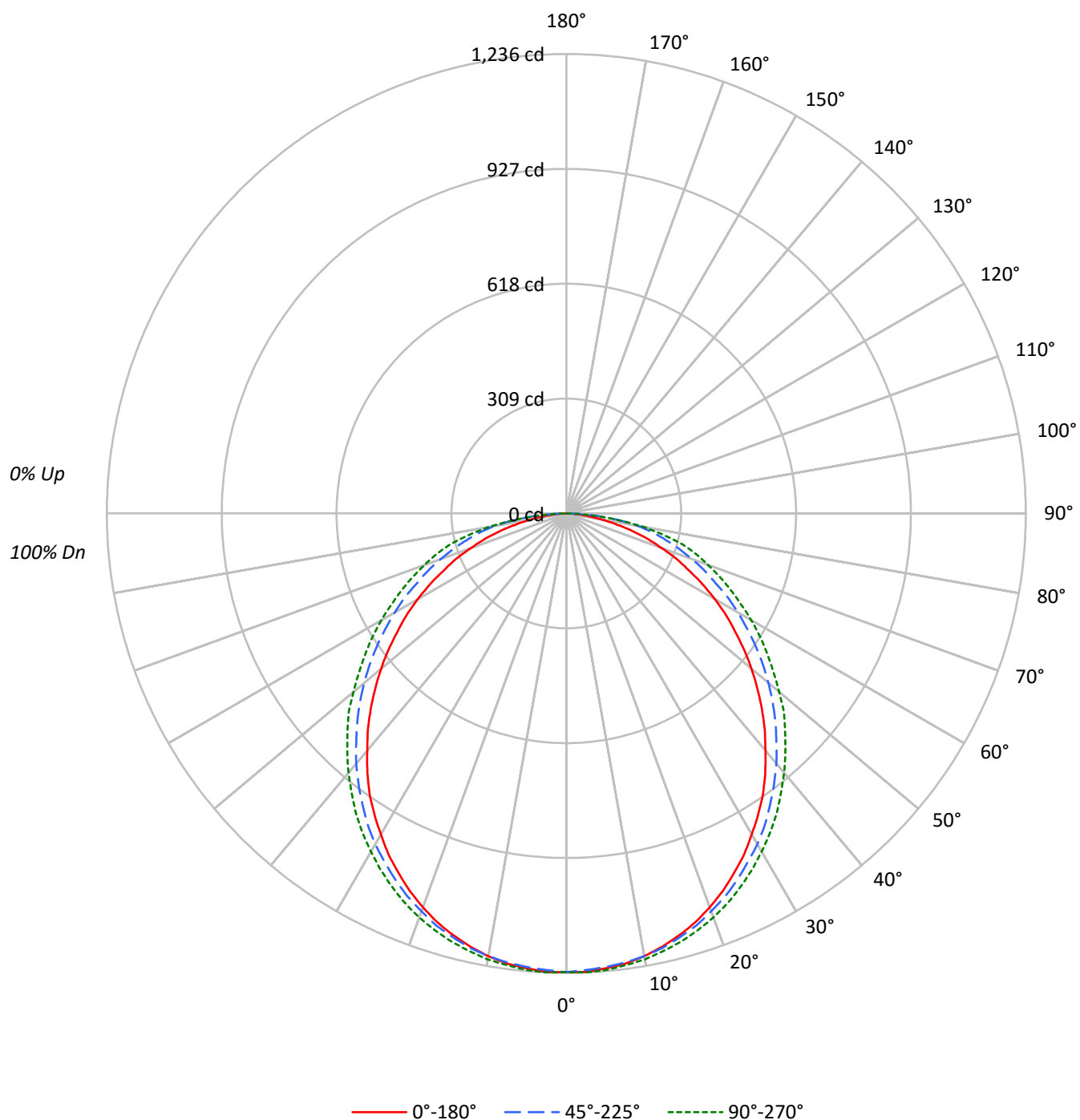
Input Watts (W): 26.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1660	1660	1660
5°	1659	1654	1665
10°	1652	1652	1664
15°	1636	1644	1661
20°	1615	1631	1656
25°	1585	1615	1646
30°	1549	1596	1633
35°	1515	1570	1620
40°	1464	1544	1601
45°	1416	1513	1584
50°	1361	1485	1564
55°	1301	1458	1549
60°	1240	1435	1546
65°	1161	1410	1556
70°	1075	1417	1598
75°	963	1444	1687
80°	778	1530	1651
85°	585	1343	1309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.8	3.3
10°-20°	333.8	9.5
20°-30°	501.7	14.3
30°-40°	597.6	17.0
40°-50°	611.6	17.4
50°-60°	550.6	15.7
60°-70°	432.4	12.3
70°-80°	280.6	8.0
80°-90°	86.8	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°	952.3	27.1
0°-40°	1549.9	44.1
0°-60°	2712.1	77.2
0°-90°	3512.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3512.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1234	1234	1234	1234	1234	
5°	1228	1230	1225	1232	1233	117
15°	1175	1178	1180	1190	1192	331
25°	1068	1076	1088	1106	1109	492
35°	923	934	956	979	986	576
45°	744	762	795	826	832	574
55°	554	579	621	654	660	497
65°	365	393	443	480	489	363
75°	185	221	278	316	325	196
85°	38	70	87	85	85	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1233.8	1233.8	1233.8	1233.8	1233.8
2.5°	1234.9	1234.9	1229.3	1234.9	1236.0
5°	1228.2	1230.4	1224.9	1231.6	1232.7
7.5°	1221.5	1221.5	1218.2	1224.9	1226.0
10°	1209.2	1210.4	1209.2	1217.1	1218.2
12.5°	1193.6	1195.9	1197.0	1204.8	1205.9
15°	1174.7	1178.0	1180.2	1190.3	1192.5
17.5°	1153.5	1156.8	1162.4	1173.5	1175.8
20°	1127.8	1132.3	1139.0	1153.5	1156.8
22.5°	1099.9	1104.4	1115.5	1128.9	1134.5
25°	1067.6	1076.5	1087.7	1105.5	1108.8
27.5°	1035.2	1043.0	1057.5	1076.5	1081.0
30°	997.3	1009.6	1027.4	1046.4	1050.8
32.5°	960.5	972.8	993.9	1014.0	1019.6
35°	922.6	933.7	956.0	979.4	986.1
37.5°	879.0	893.5	918.1	941.5	948.2
40°	833.3	851.2	879.0	903.6	911.4
42.5°	789.8	808.8	836.7	863.4	872.4
45°	744.1	761.9	795.4	825.5	832.2
47.5°	697.2	717.3	753.0	783.1	794.3
50°	650.4	671.6	709.5	740.7	747.4
52.5°	603.5	625.8	666.0	699.4	702.8
55°	554.4	579.0	621.4	653.7	660.4
57.5°	509.8	531.0	576.7	610.2	618.0
60°	460.7	484.1	533.2	564.5	574.5
62.5°	413.9	438.4	489.7	521.0	529.9
65°	364.8	392.7	442.9	479.7	488.6
67.5°	322.4	349.2	402.7	438.4	447.3
70°	273.3	303.4	360.3	397.1	406.1
72.5°	230.9	262.2	319.0	354.7	368.1
75°	185.2	220.9	277.8	315.7	324.6
77.5°	140.6	181.8	239.8	268.8	268.8
80°	100.4	143.9	197.5	210.8	213.1
82.5°	65.8	108.2	146.1	145.0	145.0
85°	37.9	70.3	87.0	84.8	84.8
87.5°	14.5	29.0	31.2	31.2	30.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)