

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: P314226

Luminaire Tested: **24FCZ2-35HE-UNV-L83050-S-CP125-W2A-U-3500K**

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: P314226
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-L83050-S-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (336) 3500K 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: 3303.0 lumens
Efficiency: N/A
Efficacy: 127.0 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

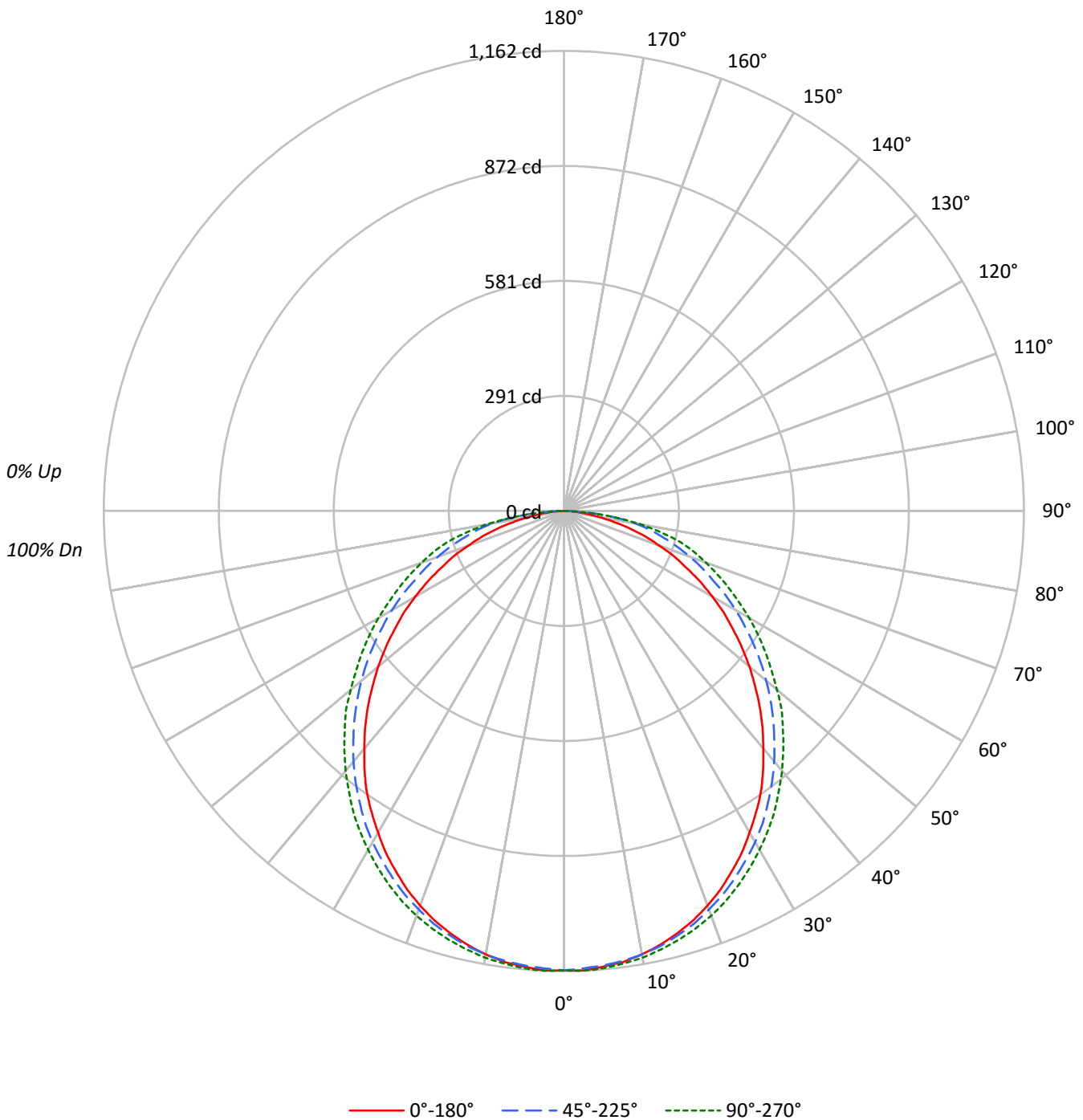
Input Watts (W): 26
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1561	1561	1561
5°	1560	1556	1566
10°	1554	1554	1565
15°	1539	1546	1562
20°	1519	1534	1558
25°	1491	1519	1548
30°	1457	1501	1535
35°	1425	1477	1523
40°	1376	1452	1506
45°	1332	1423	1489
50°	1280	1397	1471
55°	1223	1371	1457
60°	1166	1350	1454
65°	1092	1326	1463
70°	1011	1333	1502
75°	906	1358	1587
80°	731	1439	1553
85°	551	1263	1230



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.9	3.3
10°-20°	313.9	9.5
20°-30°	471.8	14.3
30°-40°	562.0	17.0
40°-50°	575.2	17.4
50°-60°	517.9	15.7
60°-70°	406.7	12.3
70°-80°	263.9	8.0
80°-90°	81.6	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°	895.6	27.1
0°-40°	1457.6	44.1
0°-60°	2550.7	77.2
0°-90°	3303.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3303.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1160	1160	1160	1160	1160	
5°	1155	1157	1152	1158	1159	110
15°	1105	1108	1110	1119	1122	312
25°	1004	1012	1023	1040	1043	463
35°	868	878	899	921	928	541
45°	700	717	748	776	783	540
55°	521	544	584	615	621	467
65°	343	369	416	451	460	342
75°	174	208	261	297	305	184
85°	36	66	82	80	80	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1160.4	1160.4	1160.4	1160.4	1160.4
2.5°	1161.4	1161.4	1156.2	1161.4	1162.5
5°	1155.1	1157.2	1152.0	1158.3	1159.3
7.5°	1148.8	1148.8	1145.7	1152.0	1153.0
10°	1137.3	1138.3	1137.3	1144.6	1145.7
12.5°	1122.6	1124.7	1125.7	1133.1	1134.1
15°	1104.8	1107.9	1110.0	1119.4	1121.5
17.5°	1084.8	1088.0	1093.2	1103.7	1105.8
20°	1060.7	1064.9	1071.2	1084.8	1088.0
22.5°	1034.5	1038.7	1049.2	1061.7	1067.0
25°	1004.0	1012.4	1022.9	1039.7	1042.9
27.5°	973.6	981.0	994.6	1012.4	1016.6
30°	937.9	949.5	966.3	984.1	988.3
32.5°	903.3	914.9	934.8	953.7	958.9
35°	867.7	878.1	899.1	921.2	927.5
37.5°	826.7	840.4	863.5	885.5	891.8
40°	783.7	800.5	826.7	849.8	857.2
42.5°	742.8	760.6	786.9	812.0	820.4
45°	699.8	716.6	748.0	776.4	782.7
47.5°	655.7	674.6	708.2	736.5	747.0
50°	611.7	631.6	667.3	696.6	702.9
52.5°	567.6	588.6	626.3	657.8	661.0
55°	521.4	544.5	584.4	614.8	621.1
57.5°	479.5	499.4	542.4	573.9	581.2
60°	433.3	455.3	501.5	530.9	540.3
62.5°	389.2	412.3	460.6	490.0	498.3
65°	343.1	369.3	416.5	451.1	459.5
67.5°	303.2	328.4	378.7	412.3	420.7
70°	257.0	285.4	338.9	373.5	381.9
72.5°	217.2	246.6	300.1	333.6	346.2
75°	174.2	207.7	261.2	296.9	305.3
77.5°	132.2	171.0	225.6	252.8	252.8
80°	94.4	135.3	185.7	198.3	200.4
82.5°	61.9	101.8	137.4	136.4	136.4
85°	35.7	66.1	81.8	79.7	79.7
87.5°	13.6	27.3	29.4	29.4	28.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)