

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: P314250

Luminaire Tested: **24FCZ2-35-UNV-L83050-S-CP125-W2A-U-3000K**

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: P314250
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: 24FCZ2-35-UNV-L83050-S-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (168) 3000K 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: 3155.0 lumens
Efficiency: N/A
Efficacy: 113.1 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

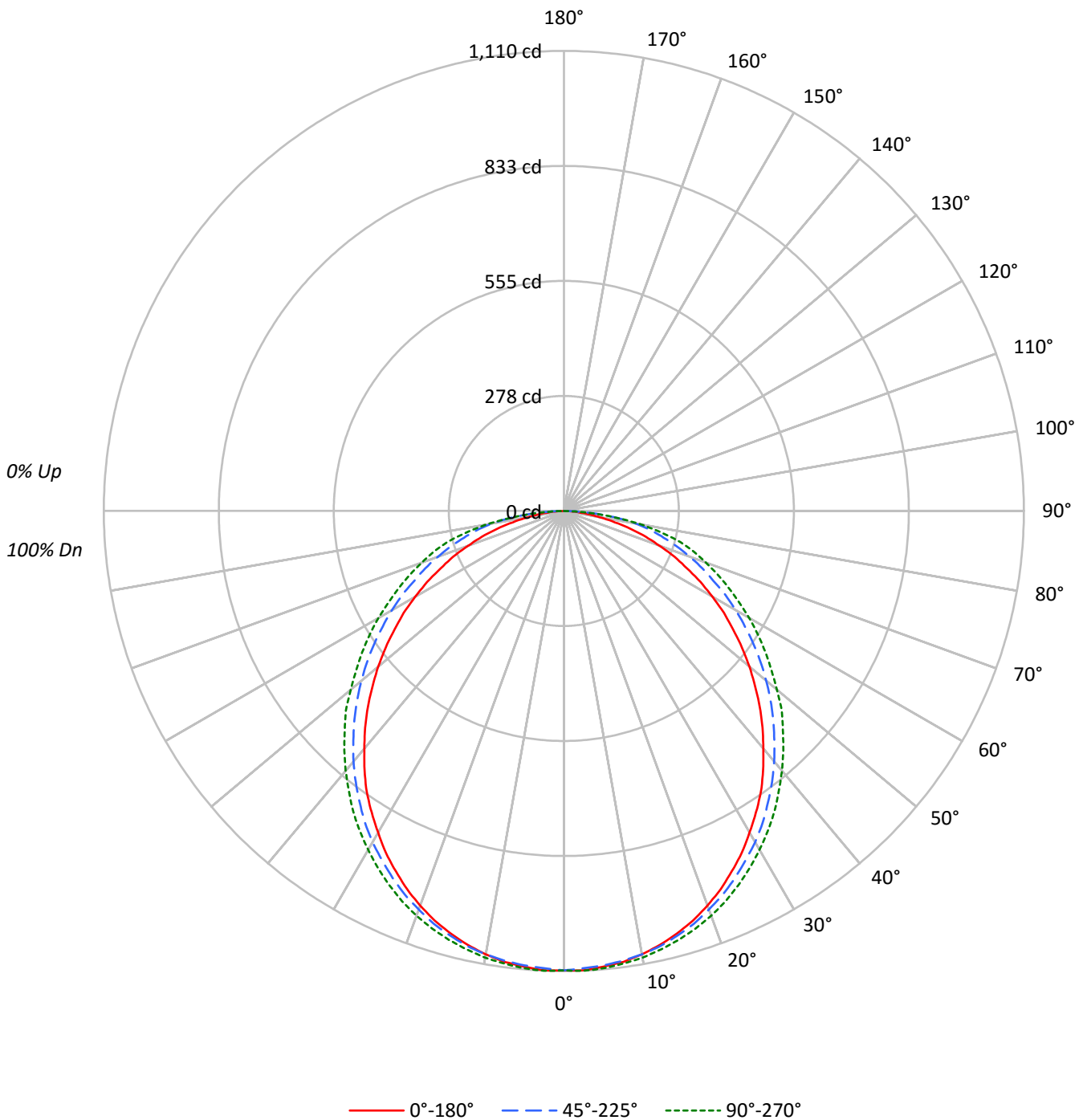
Input Watts (W): 27.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1491	1491	1491
5°	1490	1486	1496
10°	1484	1484	1495
15°	1470	1477	1492
20°	1451	1465	1488
25°	1424	1451	1479
30°	1392	1434	1467
35°	1361	1411	1455
40°	1315	1387	1438
45°	1272	1360	1423
50°	1223	1334	1405
55°	1168	1309	1392
60°	1114	1289	1389
65°	1043	1267	1397
70°	966	1273	1435
75°	865	1297	1516
80°	699	1375	1483
85°	526	1207	1176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.9	3.3
10°-20°	299.8	9.5
20°-30°	450.7	14.3
30°-40°	536.9	17.0
40°-50°	549.4	17.4
50°-60°	494.7	15.7
60°-70°	388.5	12.3
70°-80°	252.1	8.0
80°-90°	78.0	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°	855.5	27.1
0°-40°	1392.3	44.1
0°-60°	2436.4	77.2
0°-90°	3155.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3155.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1108	1108	1108	1108	1108	
5°	1103	1105	1100	1106	1107	105
15°	1055	1058	1060	1069	1071	298
25°	959	967	977	993	996	442
35°	829	839	859	880	886	517
45°	668	684	714	742	748	515
55°	498	520	558	587	593	447
65°	328	353	398	431	439	326
75°	166	198	250	284	292	176
85°	34	63	78	76	76	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1108.4	1108.4	1108.4	1108.4	1108.4
2.5°	1109.4	1109.4	1104.4	1109.4	1110.4
5°	1103.4	1105.4	1100.4	1106.4	1107.4
7.5°	1097.3	1097.3	1094.3	1100.4	1101.4
10°	1086.3	1087.3	1086.3	1093.3	1094.3
12.5°	1072.3	1074.3	1075.3	1082.3	1083.3
15°	1055.3	1058.3	1060.3	1069.3	1071.3
17.5°	1036.2	1039.2	1044.2	1054.3	1056.3
20°	1013.2	1017.2	1023.2	1036.2	1039.2
22.5°	988.1	992.1	1002.1	1014.2	1019.2
25°	959.1	967.1	977.1	993.1	996.1
27.5°	930.0	937.0	950.0	967.1	971.1
30°	895.9	906.9	923.0	940.0	944.0
32.5°	862.8	873.9	892.9	910.9	916.0
35°	828.8	838.8	858.8	879.9	885.9
37.5°	789.7	802.7	824.8	845.8	851.8
40°	748.6	764.6	789.7	811.7	818.8
42.5°	709.5	726.6	751.6	775.7	783.7
45°	668.4	684.5	714.5	741.6	747.6
47.5°	626.3	644.4	676.4	703.5	713.5
50°	584.3	603.3	637.4	665.4	671.4
52.5°	542.2	562.2	598.3	628.3	631.4
55°	498.1	520.1	558.2	587.3	593.3
57.5°	458.0	477.0	518.1	548.2	555.2
60°	413.9	434.9	479.0	507.1	516.1
62.5°	371.8	393.8	439.9	468.0	476.0
65°	327.7	352.8	397.9	430.9	438.9
67.5°	289.6	313.7	361.8	393.8	401.9
70°	245.5	272.6	323.7	356.8	364.8
72.5°	207.4	235.5	286.6	318.7	330.7
75°	166.4	198.4	249.5	283.6	291.6
77.5°	126.3	163.3	215.5	241.5	241.5
80°	90.2	129.3	177.4	189.4	191.4
82.5°	59.1	97.2	131.3	130.3	130.3
85°	34.1	63.1	78.2	76.2	76.2
87.5°	13.0	26.1	28.1	28.1	27.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)