

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: P313850

Luminaire Tested: **24FCZ2-35HE-UNV-L83050-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: P313850
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: 24FCZ2-35HE-UNV-L83050-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 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: 2971.0 lumens
Efficiency: N/A
Efficacy: 114.7 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

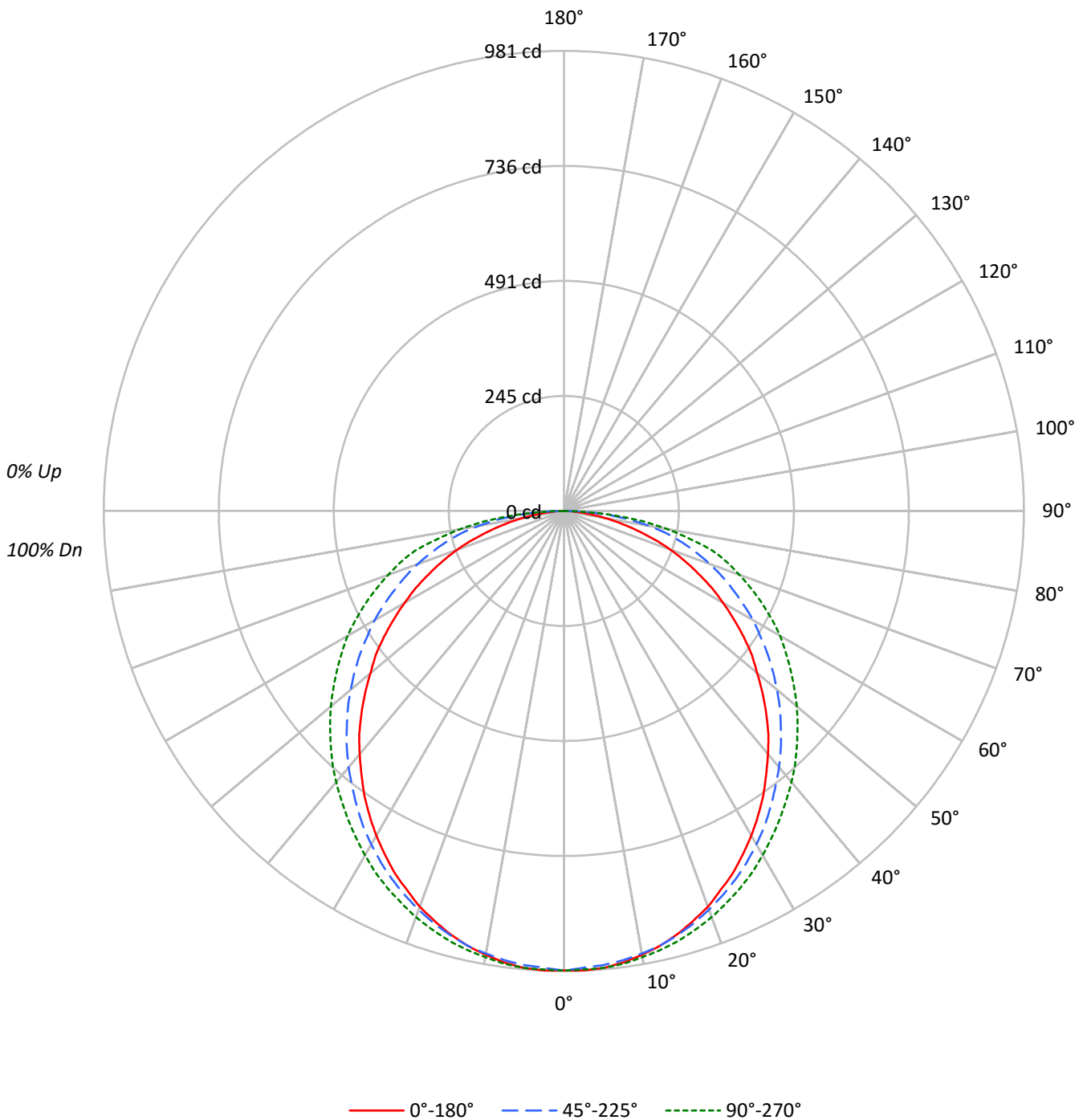
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1318	1318	1318
5°	1321	1313	1321
10°	1313	1309	1320
15°	1302	1304	1321
20°	1286	1296	1320
25°	1266	1286	1318
30°	1242	1276	1317
35°	1218	1263	1318
40°	1189	1254	1326
45°	1161	1245	1337
50°	1127	1242	1358
55°	1098	1244	1385
60°	1056	1255	1432
65°	1007	1268	1484
70°	954	1307	1566
75°	850	1363	1711
80°	725	1444	1749
85°	517	1431	1673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	3.1
10°-20°	265.1	8.9
20°-30°	400.5	13.5
30°-40°	482.7	16.2
40°-50°	506.7	17.1
50°-60°	474.0	16.0
60°-70°	391.5	13.2
70°-80°	266.8	9.0
80°-90°	91.0	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°	758.4	25.5
0°-40°	1241.0	41.8
0°-60°	2221.8	74.8
0°-90°	2971.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2971.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	980	980	980	980	980	
5°	978	977	972	978	978	93
15°	934	936	936	946	948	263
25°	853	857	866	883	888	392
35°	741	749	769	794	802	463
45°	610	623	654	690	703	471
55°	468	487	530	574	590	418
65°	316	343	398	448	466	314
75°	164	201	262	312	329	174
85°	34	66	93	104	108	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	979.8	979.8	979.8	979.8	979.8
2.5°	980.8	979.8	974.9	979.8	978.8
5°	977.8	976.9	971.9	977.8	977.8
7.5°	970.9	970.9	966.0	972.9	973.9
10°	961.1	961.1	958.1	966.0	966.0
12.5°	949.3	949.3	949.3	957.1	958.1
15°	934.5	935.5	936.4	946.3	948.3
17.5°	916.7	918.7	921.7	933.5	935.5
20°	898.0	900.0	904.9	918.7	921.7
22.5°	874.3	879.3	886.2	901.9	904.9
25°	852.7	856.6	866.5	883.2	888.1
27.5°	826.0	832.0	844.8	862.5	869.4
30°	799.4	805.3	821.1	841.8	847.7
32.5°	770.8	779.7	796.5	818.2	825.1
35°	741.3	749.2	768.9	794.5	802.4
37.5°	708.7	719.6	741.3	768.9	778.7
40°	677.2	689.0	713.7	743.2	755.1
42.5°	645.6	657.5	685.1	718.6	730.4
45°	610.2	623.0	654.5	690.0	702.8
47.5°	574.7	590.4	624.9	662.4	676.2
50°	538.2	555.9	593.4	632.8	648.6
52.5°	505.7	522.4	561.9	604.2	619.0
55°	468.2	486.9	530.3	573.7	590.4
57.5°	429.8	450.5	496.8	544.1	560.9
60°	392.3	415.0	466.2	513.6	532.3
62.5°	355.8	378.5	431.7	481.0	499.8
65°	316.4	343.0	398.2	448.5	466.2
67.5°	279.0	307.5	365.7	415.0	432.7
70°	242.5	270.1	332.2	380.5	398.2
72.5°	203.1	234.6	296.7	347.0	365.7
75°	163.6	201.1	262.2	311.5	329.2
77.5°	127.2	165.6	226.7	267.1	276.0
80°	93.6	133.1	186.3	214.9	225.7
82.5°	60.1	99.6	141.9	162.6	171.5
85°	33.5	66.0	92.7	104.5	108.4
87.5°	13.8	28.6	37.5	42.4	42.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)