

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: P309255

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-HRP-CP125-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: P309255  
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: 24FCZ2-35HE-UNV-L82765-HRP-CP125-W2A-U-5700K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB 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: 2486.0 lumens  
Efficiency: N/A  
Efficacy: 93.1 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

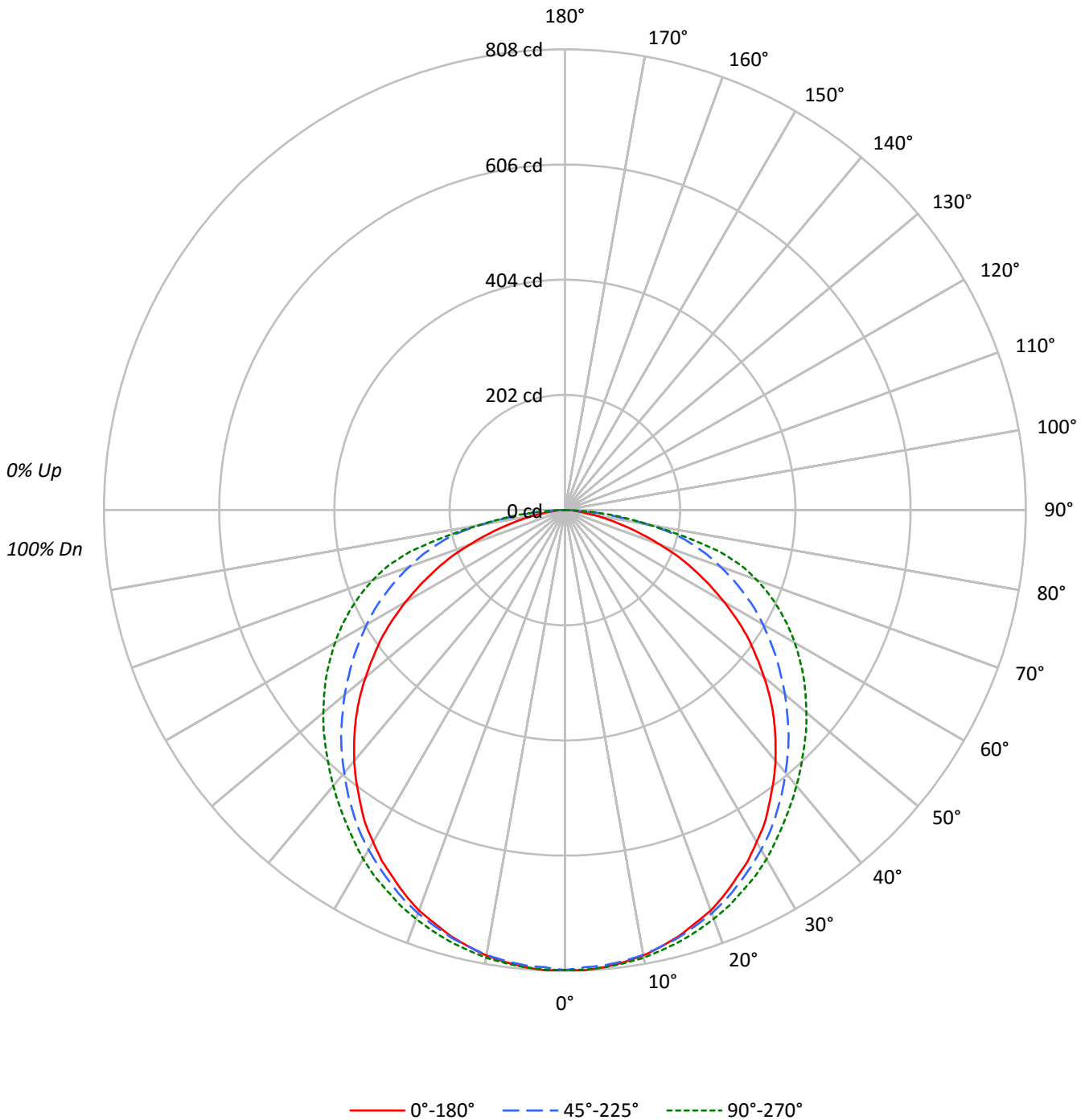
Input Watts (W): 26.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	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	24	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1085	1085	1085
5°	1087	1082	1087
10°	1084	1082	1089
15°	1077	1080	1090
20°	1070	1077	1092
25°	1057	1072	1094
30°	1045	1069	1098
35°	1027	1063	1099
40°	1009	1057	1110
45°	986	1055	1127
50°	954	1054	1157
55°	920	1062	1199
60°	868	1078	1252
65°	802	1103	1322
70°	700	1142	1408
75°	568	1201	1456
80°	419	1178	1178
85°	321	868	980



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.4	3.1
10°-20°	219.4	8.8
20°-30°	334.0	13.4
30°-40°	405.6	16.3
40°-50°	428.5	17.2
50°-60°	404.3	16.3
60°-70°	336.2	13.5
70°-80°	221.2	8.9
80°-90°	60.3	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°	629.9	25.3
0°-40°	1035.5	41.7
0°-60°	1868.3	75.2
0°-90°	2486.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2486.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	807	807	807	807	807	
5°	804	804	801	804	804	76
15°	773	774	775	783	783	218
25°	712	716	722	735	737	328
35°	626	633	647	664	669	392
45°	518	529	555	582	592	399
55°	392	409	453	495	511	349
65°	252	281	347	398	415	249
75°	109	159	231	274	280	118
85°	21	46	56	62	64	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	806.6	806.6	806.6	806.6	806.6
2.5°	807.6	806.6	802.4	806.6	806.6
5°	804.5	804.5	801.4	804.5	804.5
7.5°	799.3	799.3	797.2	801.4	801.4
10°	793.1	793.1	792.0	797.2	797.2
12.5°	783.7	784.7	783.7	789.9	789.9
15°	773.3	774.3	775.4	782.6	782.6
17.5°	759.8	761.8	763.9	772.2	773.3
20°	747.3	748.3	752.5	761.8	762.9
22.5°	730.6	733.7	738.9	748.3	751.4
25°	711.9	716.0	722.3	734.8	736.9
27.5°	694.2	697.3	705.6	719.2	723.3
30°	672.3	677.5	687.9	701.5	706.7
32.5°	651.5	656.7	669.2	683.8	687.9
35°	625.5	632.8	647.3	664.0	669.2
37.5°	600.5	607.8	625.5	644.2	650.5
40°	574.5	582.8	601.6	623.4	631.7
42.5°	546.4	557.8	578.7	602.6	612.0
45°	518.3	528.7	554.7	581.8	592.2
47.5°	488.1	500.6	528.7	561.0	573.5
50°	455.9	471.5	503.7	539.1	552.6
52.5°	423.6	441.3	477.7	517.3	531.8
55°	392.4	409.0	452.7	495.4	511.0
57.5°	358.0	378.8	426.7	472.5	488.1
60°	322.6	345.5	400.7	448.6	465.2
62.5°	287.2	313.3	375.7	423.6	441.3
65°	251.9	281.0	346.6	397.6	415.3
67.5°	217.5	249.8	319.5	370.5	388.2
70°	178.0	218.6	290.4	340.3	358.0
72.5°	141.5	188.4	262.3	309.1	324.7
75°	109.3	159.2	231.0	273.7	280.0
77.5°	80.1	130.1	198.8	213.4	214.4
80°	54.1	104.1	152.0	149.9	152.0
82.5°	35.4	78.1	95.7	107.2	108.2
85°	20.8	45.8	56.2	62.4	63.5
87.5°	10.4	15.6	19.8	20.8	22.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)