

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: P309245

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-HRP-CA125-W2A-U-5500K**

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: P309245
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-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5500K 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: 2529.0 lumens
Efficiency: N/A
Efficacy: 94.7 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

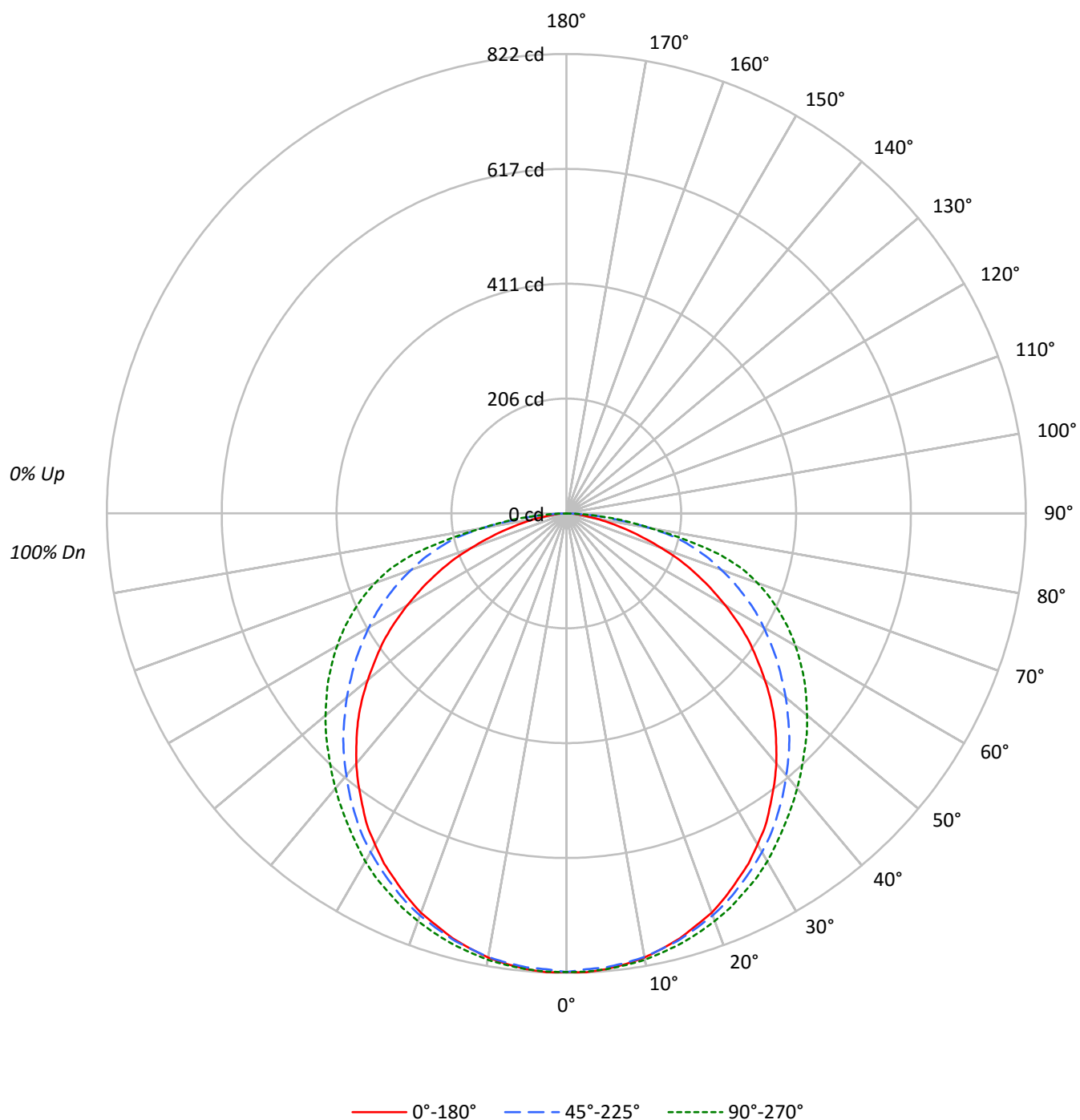
Input Watts (W): 26.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	98	94	105	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1104	1104	1104
5°	1105	1101	1105
10°	1102	1101	1108
15°	1096	1099	1109
20°	1088	1096	1111
25°	1075	1091	1113
30°	1063	1087	1117
35°	1045	1082	1118
40°	1026	1075	1129
45°	1003	1074	1146
50°	971	1073	1177
55°	936	1080	1219
60°	883	1097	1274
65°	816	1123	1345
70°	712	1162	1433
75°	578	1222	1481
80°	427	1198	1198
85°	327	883	997



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.7	3.1
10°-20°	223.2	8.8
20°-30°	339.8	13.4
30°-40°	412.6	16.3
40°-50°	435.9	17.2
50°-60°	411.3	16.3
60°-70°	342.0	13.5
70°-80°	225.0	8.9
80°-90°	61.3	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°	640.8	25.3
0°-40°	1053.4	41.7
0°-60°	1900.6	75.2
0°-90°	2529.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2529.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	820	820	820	820	820	
5°	818	818	815	818	818	78
15°	787	788	789	796	796	222
25°	724	728	735	748	750	334
35°	636	644	658	676	681	398
45°	527	538	564	592	602	406
55°	399	416	461	504	520	356
65°	256	286	353	404	422	253
75°	111	162	235	278	285	120
85°	21	47	57	64	65	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	820.5	820.5	820.5	820.5	820.5
2.5°	821.6	820.5	816.3	820.5	820.5
5°	818.4	818.4	815.2	818.4	818.4
7.5°	813.1	813.1	811.0	815.2	815.2
10°	806.8	806.8	805.7	811.0	811.0
12.5°	797.2	798.3	797.2	803.6	803.6
15°	786.7	787.7	788.8	796.2	796.2
17.5°	772.9	775.0	777.1	785.6	786.7
20°	760.2	761.2	765.5	775.0	776.1
22.5°	743.2	746.4	751.7	761.2	764.4
25°	724.2	728.4	734.8	747.5	749.6
27.5°	706.2	709.4	717.8	731.6	735.8
30°	684.0	689.3	699.8	713.6	718.9
32.5°	662.8	668.1	680.8	695.6	699.8
35°	636.3	643.7	658.5	675.5	680.8
37.5°	610.9	618.3	636.3	655.4	661.7
40°	584.4	592.9	612.0	634.2	642.7
42.5°	555.8	567.5	588.7	613.0	622.5
45°	527.3	537.8	564.3	591.8	602.4
47.5°	496.6	509.3	537.8	570.7	583.4
50°	463.7	479.6	512.4	548.4	562.2
52.5°	430.9	448.9	486.0	526.2	541.0
55°	399.2	416.1	460.6	504.0	519.8
57.5°	364.2	385.4	434.1	480.7	496.6
60°	328.2	351.5	407.6	456.3	473.3
62.5°	292.2	318.7	382.2	430.9	448.9
65°	256.2	285.9	352.6	404.4	422.4
67.5°	221.3	254.1	325.0	376.9	394.9
70°	181.0	222.3	295.4	346.2	364.2
72.5°	144.0	191.6	266.8	314.5	330.3
75°	111.2	162.0	235.0	278.5	284.8
77.5°	81.5	132.3	202.2	217.0	218.1
80°	55.1	105.9	154.6	152.5	154.6
82.5°	36.0	79.4	97.4	109.1	110.1
85°	21.2	46.6	57.2	63.5	64.6
87.5°	10.6	15.9	20.1	21.2	23.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)