

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: P309600

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-HRP-CA125-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: P309600
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: 24FCZ2-55HE-UNV-L82765-HRP-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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: 3621.0 lumens
Efficiency: N/A
Efficacy: 84.6 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

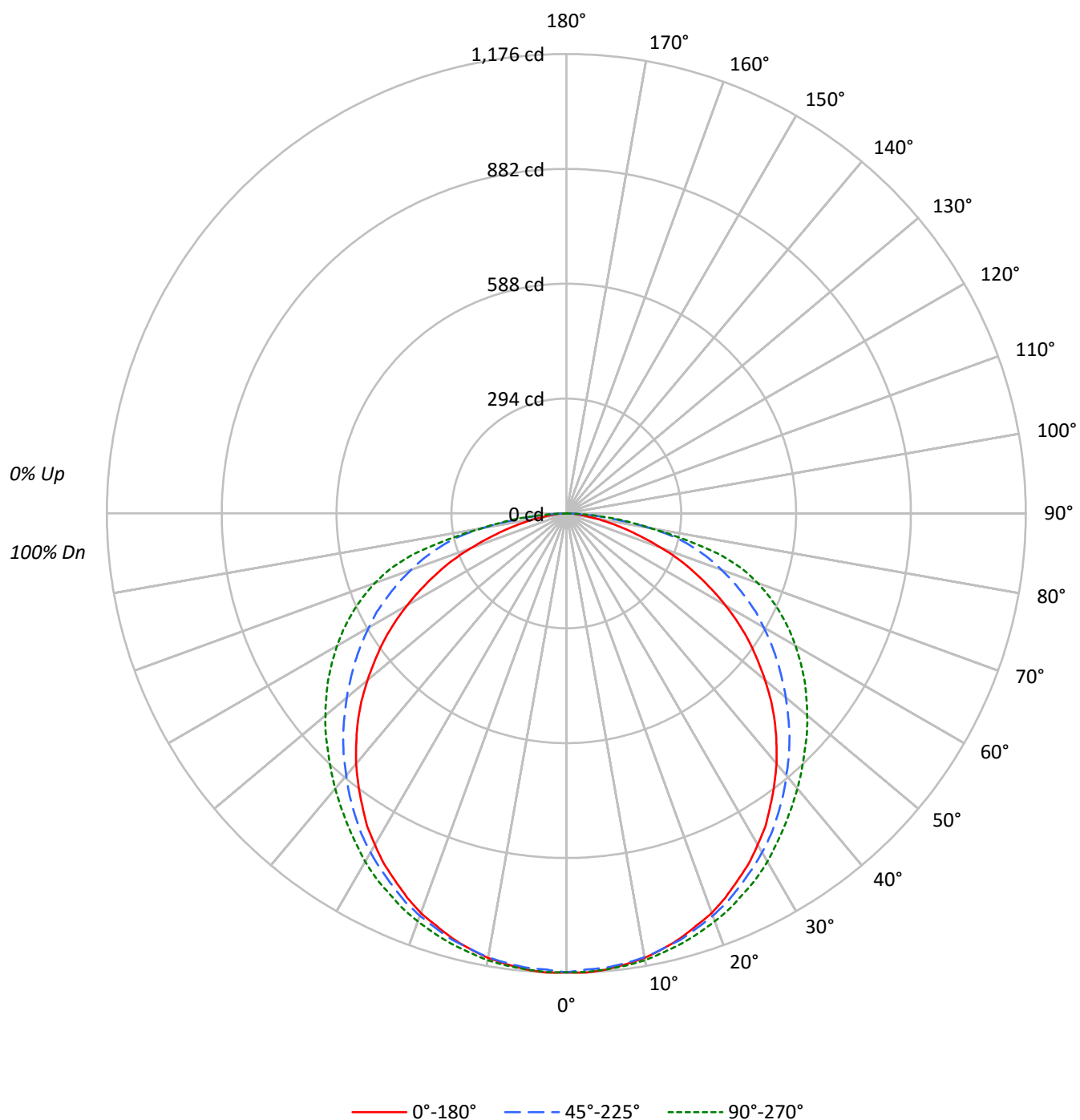
Input Watts (W): 42.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1581	1581	1581
5°	1583	1577	1583
10°	1578	1576	1586
15°	1569	1573	1588
20°	1558	1569	1591
25°	1539	1562	1593
30°	1521	1557	1599
35°	1497	1549	1601
40°	1470	1539	1616
45°	1436	1537	1641
50°	1390	1536	1685
55°	1341	1547	1746
60°	1264	1570	1823
65°	1168	1607	1926
70°	1020	1664	2052
75°	828	1749	2120
80°	611	1715	1715
85°	468	1264	1428



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.3	3.1
10°-20°	319.6	8.8
20°-30°	486.5	13.4
30°-40°	590.8	16.3
40°-50°	624.2	17.2
50°-60°	589.0	16.3
60°-70°	489.7	13.5
70°-80°	322.2	8.9
80°-90°	87.8	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°	917.4	25.3
0°-40°	1508.2	41.7
0°-60°	2721.3	75.2
0°-90°	3621.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3621.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1175	1175	1175	1175	1175	
5°	1172	1172	1167	1172	1172	111
15°	1126	1128	1129	1140	1140	318
25°	1037	1043	1052	1070	1073	478
35°	911	922	943	967	975	570
45°	755	770	808	847	863	581
55°	572	596	659	722	744	509
65°	367	409	505	579	605	363
75°	159	232	336	399	408	172
85°	30	67	82	91	92	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1174.8	1174.8	1174.8	1174.8	1174.8
2.5°	1176.4	1174.8	1168.8	1174.8	1174.8
5°	1171.8	1171.8	1167.3	1171.8	1171.8
7.5°	1164.2	1164.2	1161.2	1167.3	1167.3
10°	1155.1	1155.1	1153.6	1161.2	1161.2
12.5°	1141.5	1143.0	1141.5	1150.6	1150.6
15°	1126.3	1127.8	1129.4	1140.0	1140.0
17.5°	1106.6	1109.7	1112.7	1124.8	1126.3
20°	1088.4	1089.9	1096.0	1109.7	1111.2
22.5°	1064.2	1068.7	1076.3	1089.9	1094.5
25°	1036.9	1043.0	1052.0	1070.2	1073.3
27.5°	1011.1	1015.7	1027.8	1047.5	1053.6
30°	979.3	986.9	1002.0	1021.7	1029.3
32.5°	949.0	956.5	974.7	996.0	1002.0
35°	911.1	921.7	942.9	967.2	974.7
37.5°	874.7	885.3	911.1	938.4	947.4
40°	836.8	848.9	876.2	908.0	920.2
42.5°	795.9	812.5	842.9	877.7	891.4
45°	754.9	770.1	808.0	847.4	862.6
47.5°	711.0	729.2	770.1	817.1	835.3
50°	664.0	686.7	733.7	785.2	805.0
52.5°	617.0	642.7	695.8	753.4	774.6
55°	571.5	595.8	659.4	721.6	744.3
57.5°	521.5	551.8	621.5	688.2	711.0
60°	469.9	503.3	583.6	653.4	677.6
62.5°	418.4	456.3	547.2	617.0	642.7
65°	366.9	409.3	504.8	579.1	604.9
67.5°	316.8	363.8	465.4	539.7	565.4
70°	259.2	318.3	422.9	495.7	521.5
72.5°	206.2	274.4	382.0	450.2	473.0
75°	159.2	231.9	336.5	398.7	407.8
77.5°	116.7	189.5	289.5	310.8	312.3
80°	78.8	151.6	221.3	218.3	221.3
82.5°	51.5	113.7	139.5	156.1	157.7
85°	30.3	66.7	81.9	91.0	92.5
87.5°	15.2	22.7	28.8	30.3	33.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)