

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: METALUX

Report Number: P274835

Luminaire Tested: **24CZ2-65-RDP-UNV-L930-CD1-U**

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: P274835
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65-RDP-UNV-L930-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
Light Source: (112) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3647.0 lumens
Efficiency: N/A
Efficacy: 58.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

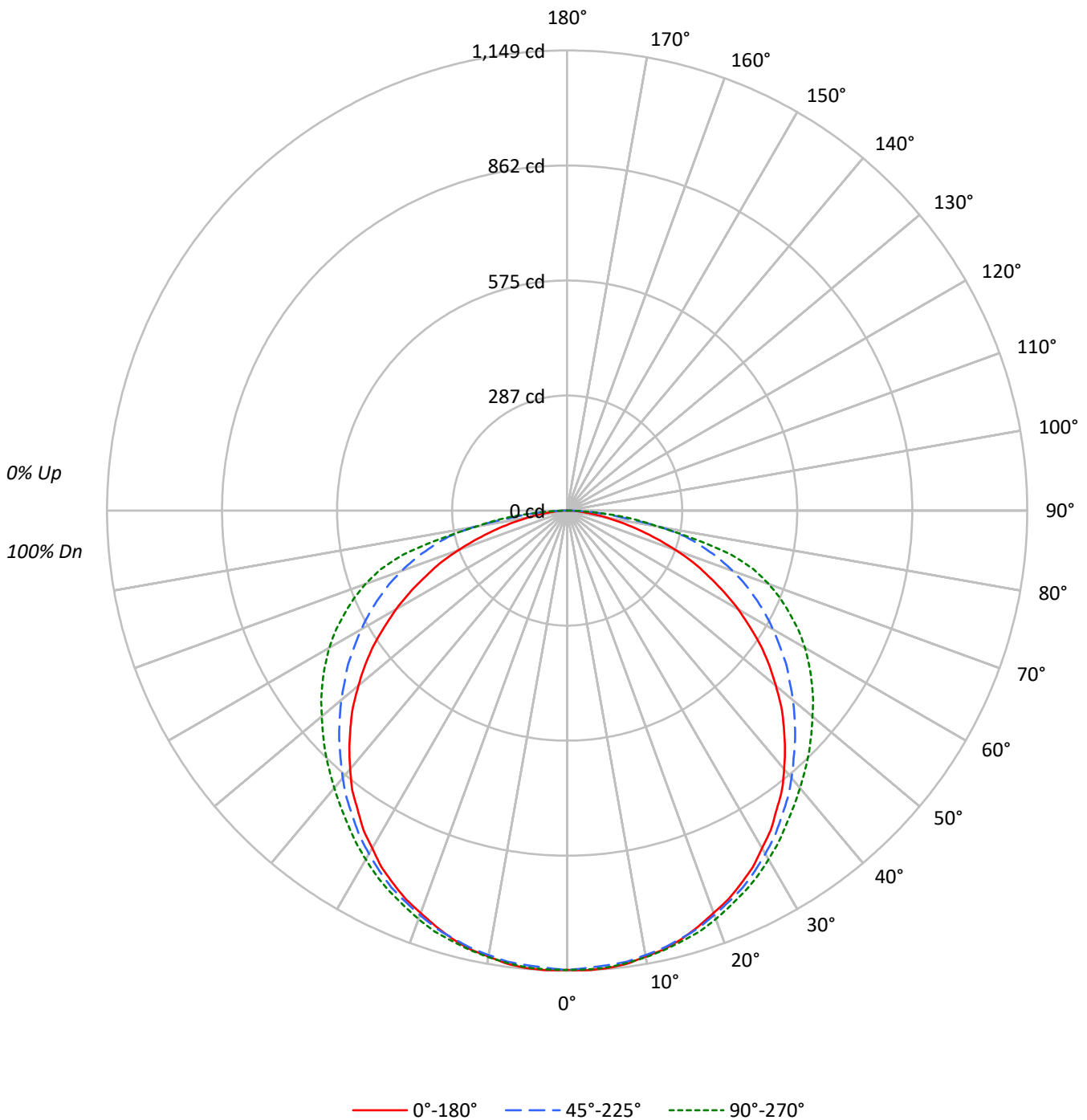
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1543	1543	1543
5°	1549	1539	1547
10°	1545	1540	1547
15°	1542	1540	1550
20°	1531	1539	1554
25°	1525	1541	1558
30°	1512	1537	1563
35°	1498	1533	1569
40°	1481	1531	1589
45°	1456	1532	1625
50°	1424	1541	1674
55°	1388	1566	1748
60°	1329	1597	1845
65°	1244	1653	1958
70°	1131	1729	2107
75°	959	1824	2201
80°	757	1836	1780
85°	559	1396	1564



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.8	3.0
10°-20°	313.1	8.6
20°-30°	478.8	13.1
30°-40°	585.3	16.0
40°-50°	623.8	17.1
50°-60°	596.5	16.4
60°-70°	505.3	13.9
70°-80°	339.6	9.3
80°-90°	95.8	2.6
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°	900.7	24.7
0°-40°	1486.0	40.7
0°-60°	2706.3	74.2
0°-90°	3647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1147	1147	1147	1147	1147	
5°	1147	1145	1140	1145	1145	109
15°	1107	1107	1105	1114	1112	312
25°	1028	1031	1038	1047	1049	474
35°	912	919	933	952	955	571
45°	765	778	805	839	854	590
55°	592	613	668	720	745	527
65°	391	430	519	588	615	388
75°	184	251	351	411	423	198
85°	36	74	90	98	101	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1146.9	1146.9	1146.9	1146.9	1146.9
2.5°	1148.7	1148.7	1143.3	1146.9	1146.9
5°	1146.9	1145.1	1139.6	1145.1	1145.1
7.5°	1141.5	1139.6	1136.0	1141.5	1139.6
10°	1130.6	1130.6	1127.0	1132.4	1132.4
12.5°	1121.6	1119.7	1117.9	1125.2	1123.4
15°	1107.1	1107.1	1105.3	1114.3	1112.5
17.5°	1089.0	1090.8	1092.6	1099.8	1101.7
20°	1069.1	1072.7	1074.5	1085.4	1085.4
22.5°	1051.0	1052.8	1056.4	1067.3	1067.3
25°	1027.5	1031.1	1038.3	1047.4	1049.2
27.5°	1004.0	1005.8	1014.8	1027.5	1029.3
30°	973.2	978.6	989.5	1004.0	1005.8
32.5°	946.1	951.5	964.2	978.6	982.3
35°	911.7	918.9	933.4	951.5	955.1
37.5°	881.0	886.4	904.5	924.4	929.8
40°	843.0	853.8	871.9	895.4	904.5
42.5°	805.0	815.8	837.5	868.3	879.2
45°	765.2	777.9	805.0	839.4	853.8
47.5°	725.4	739.9	770.6	810.4	826.7
50°	680.2	698.3	736.2	781.5	799.6
52.5°	636.8	658.5	700.1	750.7	774.2
55°	591.5	613.2	667.5	720.0	745.3
57.5°	540.9	569.8	629.5	689.2	716.3
60°	493.8	521.0	593.3	658.5	685.6
62.5°	443.2	479.4	557.2	625.9	653.0
65°	390.7	430.5	519.2	587.9	615.0
67.5°	343.7	387.1	481.2	549.9	577.1
70°	287.6	341.9	439.6	508.3	535.5
72.5°	235.2	294.9	396.2	463.1	488.4
75°	184.5	251.4	350.9	410.6	423.3
77.5°	137.5	208.0	303.9	329.2	320.2
80°	97.7	166.4	237.0	224.3	229.7
82.5°	63.3	126.6	146.5	166.4	171.9
85°	36.2	74.2	90.4	97.7	101.3
87.5°	16.3	27.1	36.2	36.2	34.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)