

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: P388783

Luminaire Tested: **24CZ2-35VHE-UNV-L950-CD1-SWPD1-U**

Issue Date: 2/28/2020

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: P388783
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35VHE-UNV-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3157.4 lumens
Efficiency: N/A
Efficacy: 138.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

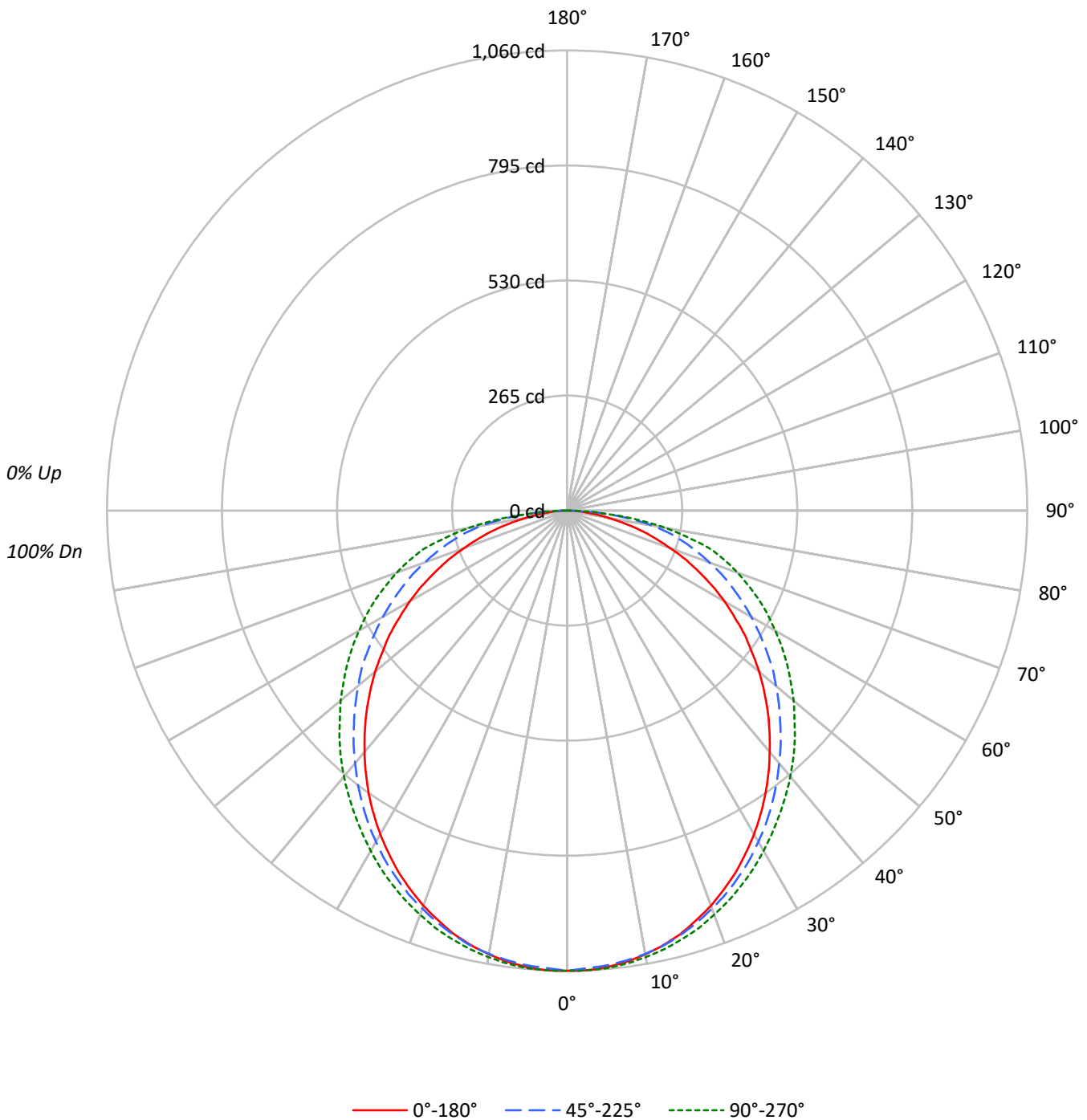
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	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	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1426	1426	1426
5°	1426	1420	1429
10°	1418	1417	1427
15°	1406	1409	1424
20°	1387	1397	1418
25°	1364	1385	1413
30°	1338	1369	1406
35°	1308	1352	1402
40°	1275	1335	1405
45°	1243	1321	1412
50°	1209	1315	1425
55°	1172	1312	1451
60°	1126	1319	1489
65°	1067	1339	1553
70°	991	1372	1642
75°	904	1441	1781
80°	743	1551	1780
85°	570	1431	1530



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.3	3.2
10°-20°	286.2	9.1
20°-30°	430.7	13.6
30°-40°	516.2	16.3
40°-50°	537.9	17.0
50°-60°	500.5	15.9
60°-70°	412.2	13.1
70°-80°	280.7	8.9
80°-90°	92.7	2.9
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°	817.2	25.9
0°-40°	1333.4	42.2
0°-60°	2371.8	75.1
0°-90°	3157.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3157.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1060	1060	1060	1060	1060	
5°	1056	1056	1052	1057	1058	100
15°	1010	1011	1012	1021	1022	284
25°	919	923	933	948	952	423
35°	797	806	823	845	854	498
45°	653	667	694	729	742	504
55°	500	516	560	604	619	445
65°	335	364	420	470	488	333
75°	174	213	277	327	342	183
85°	37	72	93	99	99	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1060.1	1060.1	1060.1	1060.1	1060.1
2.5°	1060.1	1060.1	1054.8	1060.1	1060.1
5°	1055.9	1055.9	1051.7	1056.9	1058.0
7.5°	1048.5	1049.5	1045.3	1051.7	1052.7
10°	1038.0	1039.0	1036.9	1043.2	1044.3
12.5°	1025.3	1026.4	1026.4	1033.7	1034.8
15°	1009.5	1010.6	1011.6	1021.1	1022.2
17.5°	989.5	992.6	994.8	1006.3	1008.5
20°	968.4	971.6	975.8	988.4	990.5
22.5°	944.2	948.4	955.8	969.5	972.6
25°	918.9	923.1	932.6	948.4	951.5
27.5°	890.4	896.8	908.3	925.2	929.4
30°	860.9	867.2	880.9	898.9	905.2
32.5°	829.3	837.7	853.5	873.6	879.9
35°	796.6	806.1	823.0	845.1	853.5
37.5°	761.9	772.4	792.4	816.7	827.2
40°	726.0	738.7	759.8	788.2	799.8
42.5°	690.2	701.8	728.2	758.7	771.4
45°	653.3	667.0	694.4	729.2	741.8
47.5°	615.4	629.1	661.8	698.6	710.2
50°	577.5	591.2	628.0	667.0	680.7
52.5°	536.4	554.3	596.4	635.4	649.1
55°	499.5	516.3	559.5	603.8	618.6
57.5°	457.3	477.4	524.8	571.1	586.9
60°	418.3	439.4	490.0	537.4	553.2
62.5°	378.3	401.5	455.2	503.7	521.6
65°	335.1	363.5	420.5	470.0	487.9
67.5°	296.1	325.6	385.7	436.3	452.1
70°	251.8	287.7	348.8	399.4	417.3
72.5°	213.9	249.7	314.0	363.5	381.5
75°	173.9	212.9	277.1	326.7	342.5
77.5°	133.8	177.0	241.3	279.2	284.5
80°	95.9	141.2	200.2	222.3	229.7
82.5°	67.4	108.5	147.5	162.3	166.5
85°	36.9	71.7	92.7	99.1	99.1
87.5°	15.8	30.6	36.9	37.9	39.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)