

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: P389715

Luminaire Tested: **24CZ2-35VHE-S-UNV-L940-CD1-SDWPD1-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: P389715
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35VHE-S-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3087.9 lumens
Efficiency: N/A
Efficacy: 135.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

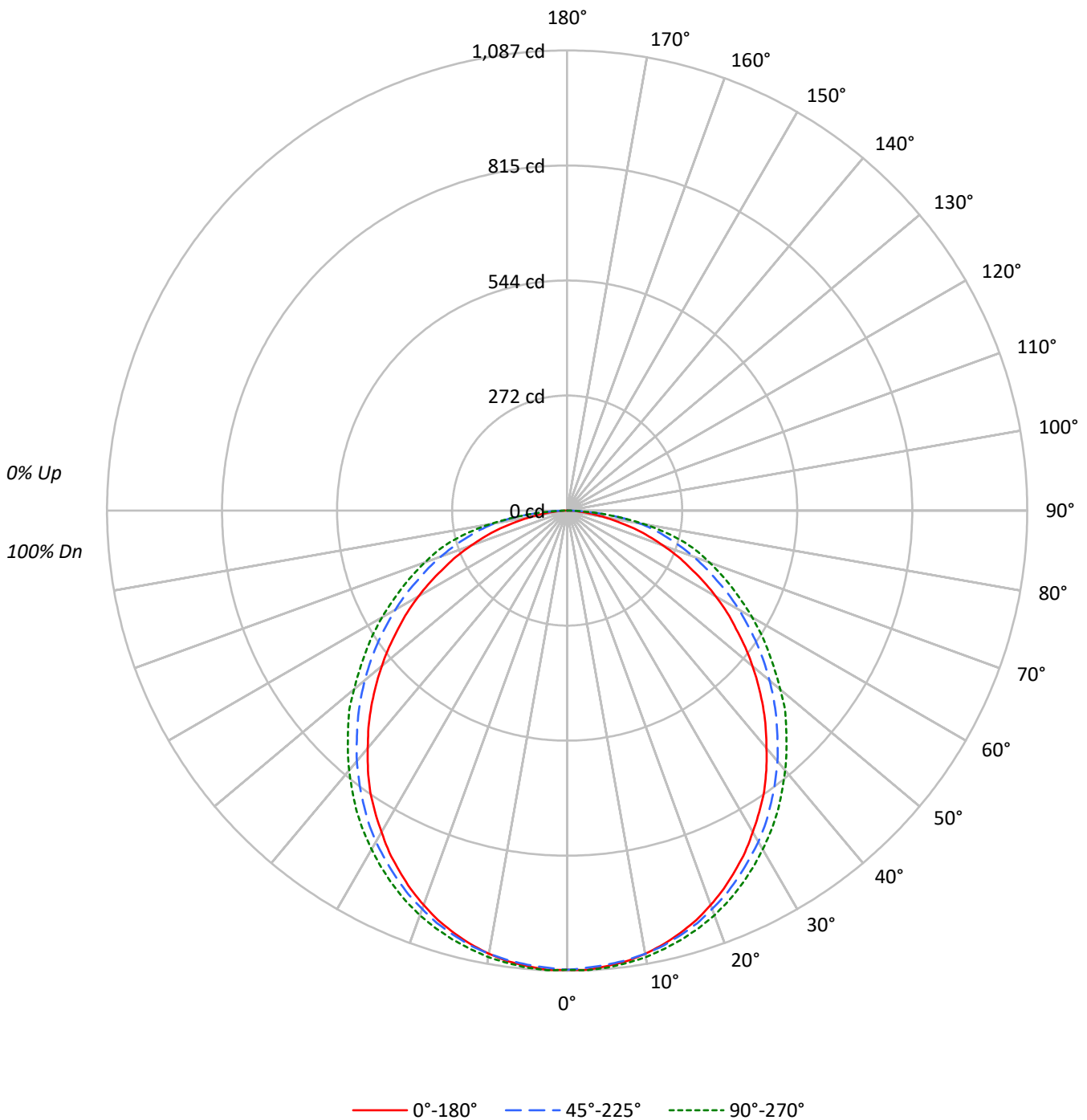
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1460	1460	1460
5°	1459	1455	1464
10°	1453	1453	1463
15°	1439	1445	1461
20°	1420	1434	1456
25°	1394	1420	1447
30°	1362	1403	1435
35°	1332	1381	1424
40°	1287	1358	1407
45°	1245	1331	1392
50°	1197	1306	1376
55°	1144	1282	1362
60°	1090	1262	1359
65°	1021	1240	1368
70°	945	1246	1404
75°	846	1269	1484
80°	684	1345	1451
85°	514	1181	1150



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.7	3.3
10°-20°	293.4	9.5
20°-30°	441.1	14.3
30°-40°	525.4	17.0
40°-50°	537.8	17.4
50°-60°	484.2	15.7
60°-70°	380.2	12.3
70°-80°	246.8	8.0
80°-90°	76.3	2.5
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°	837.3	27.1
0°-40°	1362.7	44.1
0°-60°	2384.6	77.2
0°-90°	3087.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3087.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1085	1085	1085	1085	1085	
5°	1080	1082	1077	1083	1084	103
15°	1033	1036	1038	1046	1048	291
25°	939	946	956	972	975	432
35°	811	821	841	861	867	506
45°	654	670	699	726	732	504
55°	488	509	546	575	581	437
65°	321	345	389	422	430	319
75°	163	194	244	278	285	172
85°	33	62	76	74	74	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1084.8	1084.8	1084.8	1084.8	1084.8
2.5°	1085.8	1085.8	1080.9	1085.8	1086.8
5°	1079.9	1081.9	1077.0	1082.8	1083.8
7.5°	1074.0	1074.0	1071.1	1077.0	1077.9
10°	1063.2	1064.2	1063.2	1070.1	1071.1
12.5°	1049.5	1051.5	1052.4	1059.3	1060.3
15°	1032.8	1035.8	1037.7	1046.5	1048.5
17.5°	1014.2	1017.1	1022.0	1031.8	1033.8
20°	991.6	995.5	1001.4	1014.2	1017.1
22.5°	967.1	971.0	980.8	992.6	997.5
25°	938.7	946.5	956.3	972.0	974.9
27.5°	910.2	917.1	929.8	946.5	950.4
30°	876.9	887.7	903.3	920.0	923.9
32.5°	844.5	855.3	873.9	891.6	896.5
35°	811.1	821.0	840.6	861.2	867.1
37.5°	772.9	785.6	807.2	827.8	833.7
40°	732.7	748.4	772.9	794.5	801.3
42.5°	694.4	711.1	735.6	759.2	767.0
45°	654.2	669.9	699.3	725.8	731.7
47.5°	613.0	630.7	662.1	688.5	698.4
50°	571.8	590.5	623.8	651.3	657.2
52.5°	530.6	550.2	585.6	615.0	617.9
55°	487.5	509.1	546.3	574.8	580.7
57.5°	448.2	466.9	507.1	536.5	543.4
60°	405.1	425.7	468.8	496.3	505.1
62.5°	363.9	385.5	430.6	458.0	465.9
65°	320.7	345.3	389.4	421.8	429.6
67.5°	283.5	307.0	354.1	385.5	393.3
70°	240.3	266.8	316.8	349.2	357.0
72.5°	203.0	230.5	280.5	311.9	323.7
75°	162.8	194.2	244.2	277.6	285.4
77.5°	123.6	159.9	210.9	236.4	236.4
80°	88.3	126.5	173.6	185.4	187.3
82.5°	57.9	95.1	128.5	127.5	127.5
85°	33.3	61.8	76.5	74.5	74.5
87.5°	12.8	25.5	27.5	27.5	26.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)