

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: P388803

Luminaire Tested: **24CZ2-40VHE-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: P388803
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: 24CZ2-40VHE-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3368.8 lumens
Efficiency: N/A
Efficacy: 128.6 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

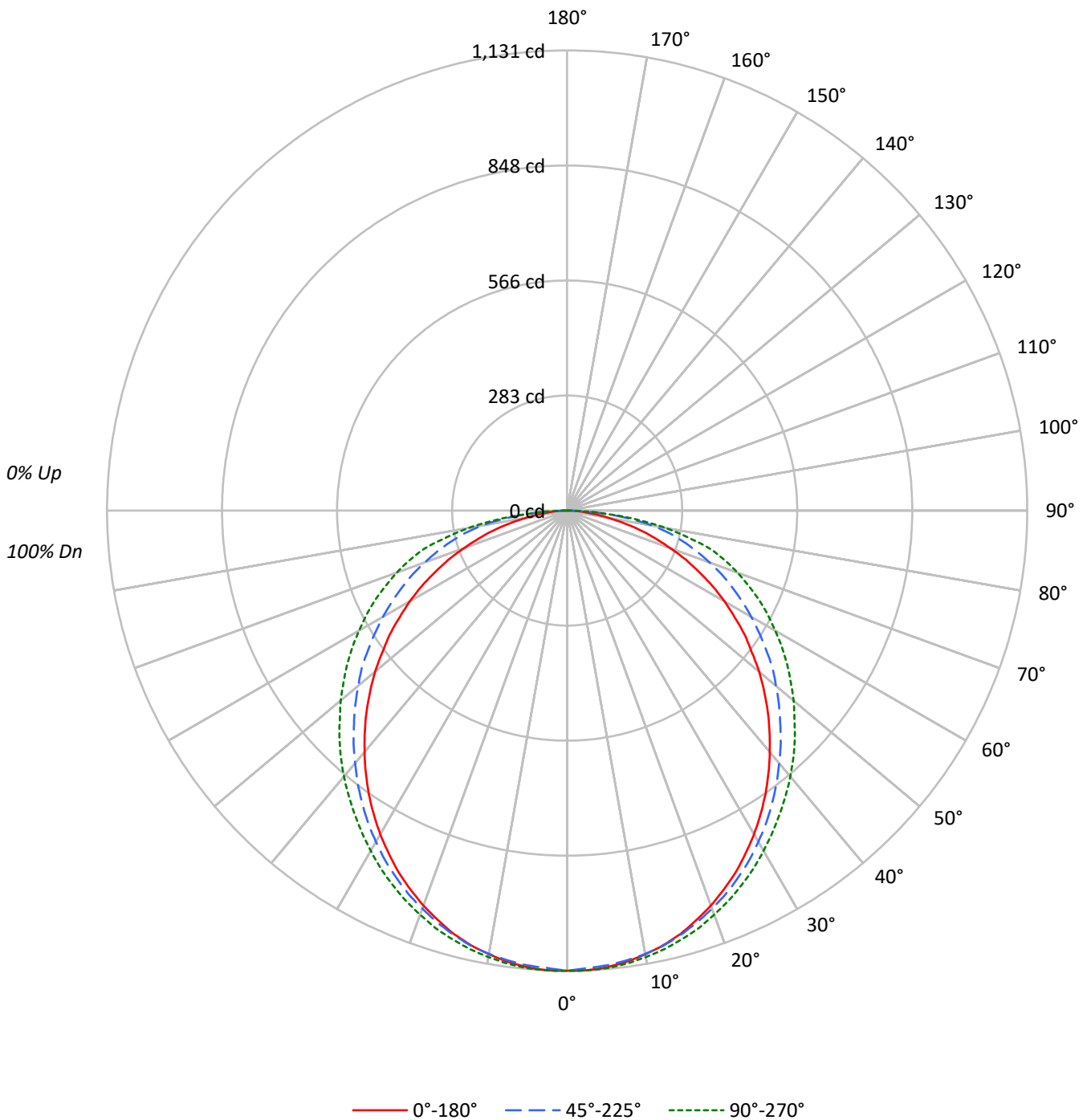
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1522	1522	1522
5°	1522	1516	1525
10°	1513	1511	1522
15°	1500	1503	1519
20°	1479	1491	1513
25°	1455	1477	1507
30°	1427	1460	1501
35°	1396	1442	1496
40°	1361	1424	1499
45°	1326	1410	1506
50°	1290	1403	1520
55°	1250	1400	1548
60°	1201	1407	1588
65°	1138	1428	1657
70°	1057	1464	1751
75°	964	1537	1900
80°	793	1655	1899
85°	608	1527	1632



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.0	3.2
10°-20°	305.4	9.1
20°-30°	459.6	13.6
30°-40°	550.7	16.3
40°-50°	573.9	17.0
50°-60°	534.0	15.9
60°-70°	439.8	13.1
70°-80°	299.5	8.9
80°-90°	98.9	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°	871.9	25.9
0°-40°	1422.7	42.2
0°-60°	2530.6	75.1
0°-90°	3368.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3368.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1131	1131	1131	1131	1131	
5°	1127	1127	1122	1128	1129	107
15°	1077	1078	1079	1090	1091	303
25°	980	985	995	1012	1015	451
35°	850	860	878	902	911	531
45°	697	712	741	778	792	538
55°	533	551	597	644	660	475
65°	358	388	449	501	521	355
75°	186	227	296	348	365	196
85°	39	76	99	106	106	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1131.1	1131.1	1131.1	1131.1	1131.1
2.5°	1131.1	1131.1	1125.4	1131.1	1131.1
5°	1126.6	1126.6	1122.1	1127.7	1128.8
7.5°	1118.7	1119.8	1115.3	1122.1	1123.2
10°	1107.5	1108.6	1106.3	1113.1	1114.2
12.5°	1094.0	1095.1	1095.1	1103.0	1104.1
15°	1077.1	1078.2	1079.3	1089.5	1090.6
17.5°	1055.7	1059.1	1061.4	1073.7	1076.0
20°	1033.2	1036.6	1041.1	1054.6	1056.9
22.5°	1007.4	1011.9	1019.8	1034.4	1037.7
25°	980.4	984.9	995.0	1011.9	1015.3
27.5°	950.0	956.8	969.2	987.2	991.6
30°	918.6	925.3	939.9	959.0	965.8
32.5°	884.8	893.8	910.7	932.1	938.8
35°	850.0	860.1	878.1	901.7	910.7
37.5°	812.9	824.1	845.5	871.3	882.6
40°	774.7	788.1	810.6	841.0	853.4
42.5°	736.4	748.8	776.9	809.5	823.0
45°	697.1	711.7	740.9	778.0	791.5
47.5°	656.6	671.2	706.1	745.4	757.8
50°	616.1	630.7	670.1	711.7	726.3
52.5°	572.3	591.4	636.4	678.0	692.6
55°	532.9	550.9	597.0	644.2	660.0
57.5°	488.0	509.3	559.9	609.4	626.2
60°	446.4	468.8	522.8	573.4	590.3
62.5°	403.6	428.4	485.7	537.4	556.5
65°	357.5	387.9	448.6	501.4	520.6
67.5°	315.9	347.4	411.5	465.5	482.3
70°	268.7	306.9	372.1	426.1	445.2
72.5°	228.2	266.5	335.0	387.9	407.0
75°	185.5	227.1	295.7	348.5	365.4
77.5°	142.8	188.9	257.5	297.9	303.6
80°	102.3	150.7	213.6	237.2	245.1
82.5°	72.0	115.8	157.4	173.1	177.6
85°	39.4	76.5	98.9	105.7	105.7
87.5°	16.9	32.6	39.4	40.5	41.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)