

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: P391327

Luminaire Tested: **24CZ2-40VHE-HRP-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: P391327
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40VHE-HRP-UNV-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3072.3 lumens
Efficiency: N/A
Efficacy: 117.3 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

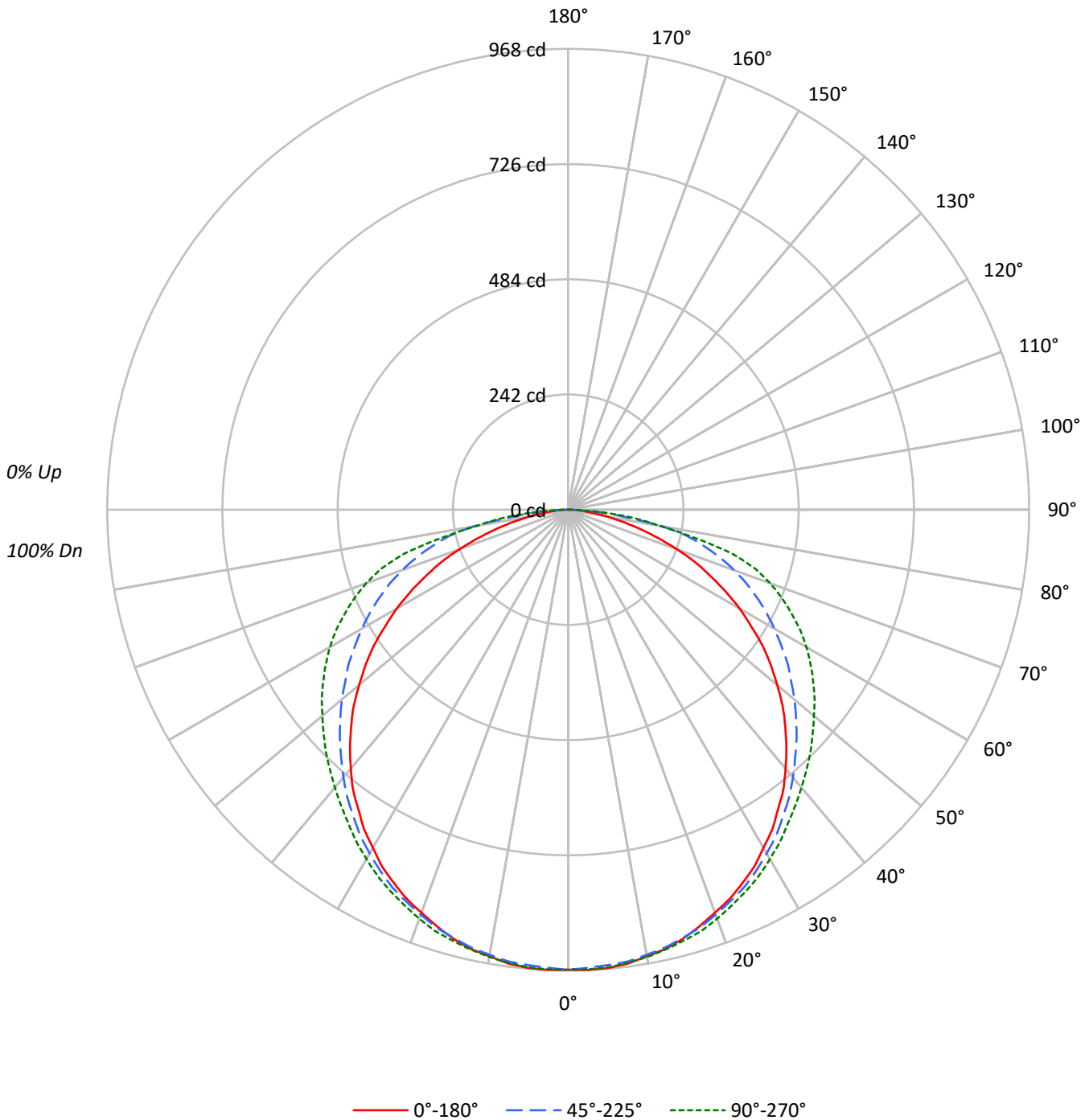
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1300	1300	1300
5°	1305	1297	1303
10°	1301	1297	1303
15°	1299	1297	1305
20°	1290	1296	1309
25°	1285	1299	1312
30°	1274	1295	1316
35°	1261	1292	1322
40°	1247	1290	1338
45°	1227	1290	1369
50°	1199	1298	1410
55°	1169	1319	1473
60°	1119	1345	1554
65°	1048	1393	1649
70°	953	1457	1775
75°	808	1537	1854
80°	638	1547	1499
85°	471	1176	1317



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.6	3.0
10°-20°	263.8	8.6
20°-30°	403.4	13.1
30°-40°	493.1	16.0
40°-50°	525.5	17.1
50°-60°	502.5	16.4
60°-70°	425.7	13.9
70°-80°	286.1	9.3
80°-90°	80.7	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°	758.8	24.7
0°-40°	1251.8	40.7
0°-60°	2279.8	74.2
0°-90°	3072.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3072.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	966	966	966	966	966	
5°	966	965	960	965	965	92
15°	933	933	931	939	937	263
25°	866	869	875	882	884	399
35°	768	774	786	802	805	481
45°	645	655	678	707	719	497
55°	498	517	562	606	628	444
65°	329	363	437	495	518	327
75°	155	212	296	346	357	166
85°	30	62	76	82	85	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	966.2	966.2	966.2	966.2	966.2
2.5°	967.7	967.7	963.1	966.2	966.2
5°	966.2	964.6	960.1	964.6	964.6
7.5°	961.6	960.1	957.0	961.6	960.1
10°	952.4	952.4	949.4	954.0	954.0
12.5°	944.8	943.3	941.8	947.9	946.3
15°	932.6	932.6	931.1	938.7	937.2
17.5°	917.4	918.9	920.4	926.5	928.1
20°	900.6	903.7	905.2	914.3	914.3
22.5°	885.4	886.9	890.0	899.1	899.1
25°	865.6	868.6	874.7	882.3	883.9
27.5°	845.8	847.3	854.9	865.6	867.1
30°	819.9	824.4	833.6	845.8	847.3
32.5°	797.0	801.6	812.2	824.4	827.5
35°	768.0	774.1	786.3	801.6	804.6
37.5°	742.1	746.7	761.9	778.7	783.3
40°	710.1	719.3	734.5	754.3	761.9
42.5°	678.1	687.3	705.6	731.5	740.6
45°	644.6	655.3	678.1	707.1	719.3
47.5°	611.1	623.3	649.2	682.7	696.4
50°	573.0	588.2	620.2	658.3	673.6
52.5°	536.4	554.7	589.7	632.4	652.2
55°	498.3	516.6	562.3	606.5	627.8
57.5°	455.6	480.0	530.3	580.6	603.5
60°	416.0	438.9	499.8	554.7	577.6
62.5°	373.4	403.8	469.4	527.3	550.1
65°	329.2	362.7	437.4	495.3	518.1
67.5°	289.5	326.1	405.4	463.3	486.1
70°	242.3	288.0	370.3	428.2	451.1
72.5°	198.1	248.4	333.7	390.1	411.5
75°	155.4	211.8	295.6	345.9	356.6
77.5°	115.8	175.2	256.0	277.3	269.7
80°	82.3	140.2	199.6	189.0	193.5
82.5°	53.3	106.7	123.4	140.2	144.8
85°	30.5	62.5	76.2	82.3	85.3
87.5°	13.7	22.9	30.5	30.5	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)