

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: P390890

Luminaire Tested: **24CZ2-100VHE-HRP-UNV-L935-CD1-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: P390890
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: 24CZ2-100VHE-HRP-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7313.8 lumens
Efficiency: N/A
Efficacy: 105.1 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

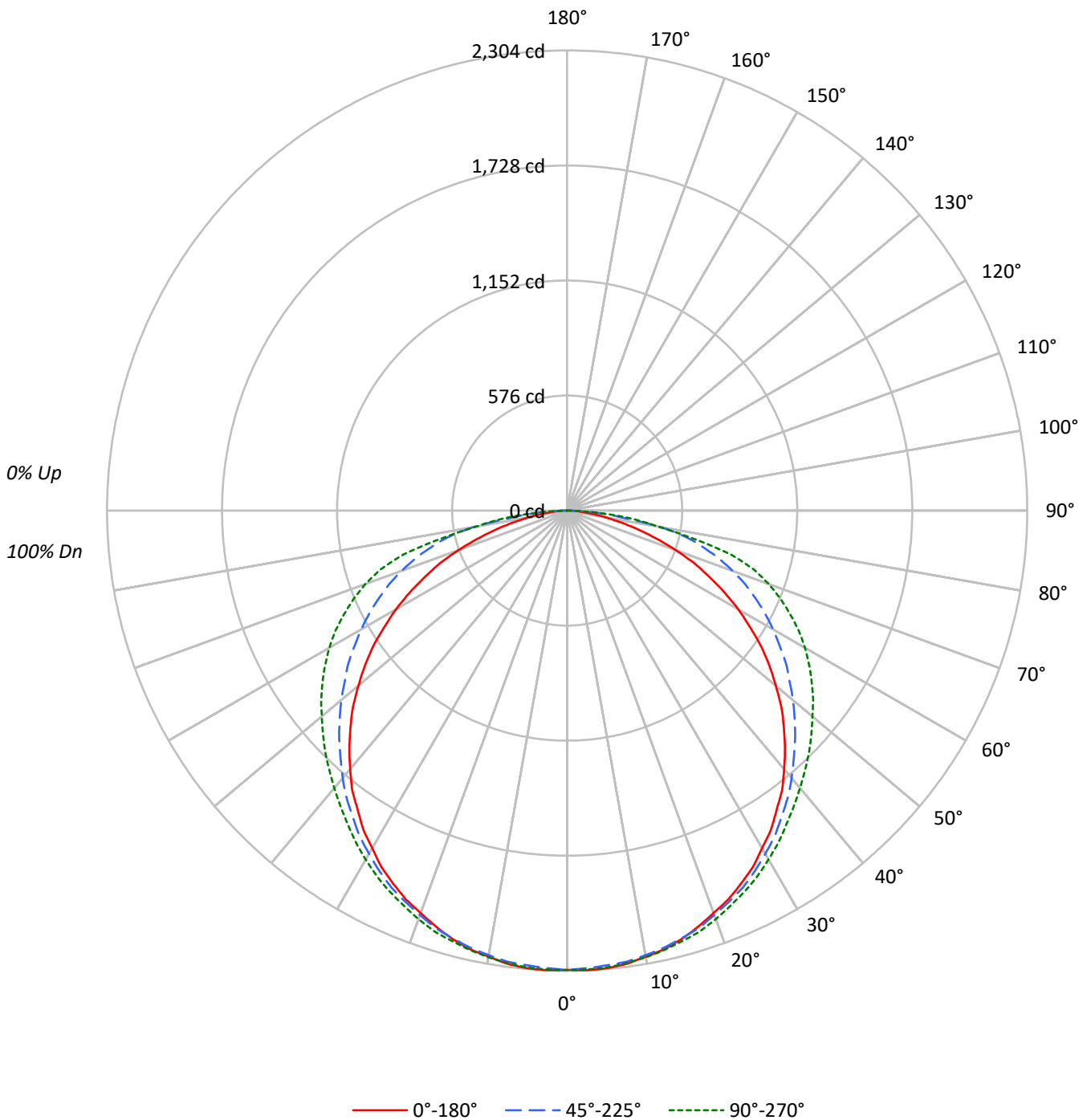
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3095	3095	3095
5°	3106	3087	3102
10°	3098	3088	3103
15°	3093	3087	3108
20°	3070	3085	3117
25°	3059	3091	3124
30°	3032	3083	3134
35°	3003	3075	3146
40°	2969	3071	3186
45°	2920	3072	3258
50°	2855	3091	3356
55°	2783	3140	3506
60°	2665	3202	3700
65°	2495	3315	3927
70°	2269	3468	4224
75°	1923	3659	4413
80°	1518	3682	3570
85°	1121	2800	3137



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.2	3.0
10°-20°	627.9	8.6
20°-30°	960.2	13.1
30°-40°	1173.8	16.0
40°-50°	1251.1	17.1
50°-60°	1196.2	16.4
60°-70°	1013.3	13.9
70°-80°	681.0	9.3
80°-90°	192.1	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°	1806.3	24.7
0°-40°	2980.1	40.7
0°-60°	5427.4	74.2
0°-90°	7313.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7313.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2300	2300	2300	2300	2300	
5°	2300	2296	2286	2296	2296	219
15°	2220	2220	2216	2235	2231	626
25°	2061	2068	2082	2100	2104	950
35°	1828	1843	1872	1908	1915	1145
45°	1534	1560	1614	1683	1712	1184
55°	1186	1230	1339	1444	1495	1057
65°	784	863	1041	1179	1233	778
75°	370	504	704	824	849	396
85°	73	149	181	196	203	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2300.0	2300.0	2300.0	2300.0	2300.0
2.5°	2303.6	2303.6	2292.7	2300.0	2300.0
5°	2300.0	2296.4	2285.5	2296.4	2296.4
7.5°	2289.1	2285.5	2278.2	2289.1	2285.5
10°	2267.3	2267.3	2260.1	2271.0	2271.0
12.5°	2249.2	2245.6	2241.9	2256.4	2252.8
15°	2220.2	2220.2	2216.5	2234.7	2231.1
17.5°	2183.9	2187.5	2191.1	2205.7	2209.3
20°	2144.0	2151.2	2154.9	2176.6	2176.6
22.5°	2107.7	2111.3	2118.6	2140.4	2140.4
25°	2060.6	2067.8	2082.3	2100.5	2104.1
27.5°	2013.4	2017.0	2035.2	2060.6	2064.2
30°	1951.7	1962.6	1984.4	2013.4	2017.0
32.5°	1897.3	1908.2	1933.6	1962.6	1969.9
35°	1828.4	1842.9	1871.9	1908.2	1915.4
37.5°	1766.7	1777.6	1813.9	1853.8	1864.7
40°	1690.5	1712.3	1748.6	1795.7	1813.9
42.5°	1614.3	1636.1	1679.6	1741.3	1763.1
45°	1534.5	1559.9	1614.3	1683.3	1712.3
47.5°	1454.7	1483.7	1545.4	1625.2	1657.9
50°	1364.0	1400.3	1476.5	1567.2	1603.5
52.5°	1277.0	1320.5	1403.9	1505.5	1552.7
55°	1186.3	1229.8	1338.6	1443.8	1494.6
57.5°	1084.7	1142.7	1262.5	1382.2	1436.6
60°	990.4	1044.8	1189.9	1320.5	1374.9
62.5°	888.8	961.3	1117.3	1255.2	1309.6
65°	783.6	863.4	1041.2	1179.0	1233.4
67.5°	689.3	776.3	965.0	1102.8	1157.2
70°	576.8	685.6	881.5	1019.4	1073.8
72.5°	471.6	591.3	794.5	928.7	979.5
75°	370.0	504.3	703.8	823.5	848.9
77.5°	275.7	417.2	609.5	660.2	642.1
80°	195.9	333.8	475.2	449.8	460.7
82.5°	127.0	253.9	293.8	333.8	344.6
85°	72.6	148.7	181.4	195.9	203.2
87.5°	32.6	54.4	72.6	72.6	68.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)