

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: P389050

Luminaire Tested: **24CZ2-70HE-SQR-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: P389050
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70HE-SQR-UNV-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6035.3 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

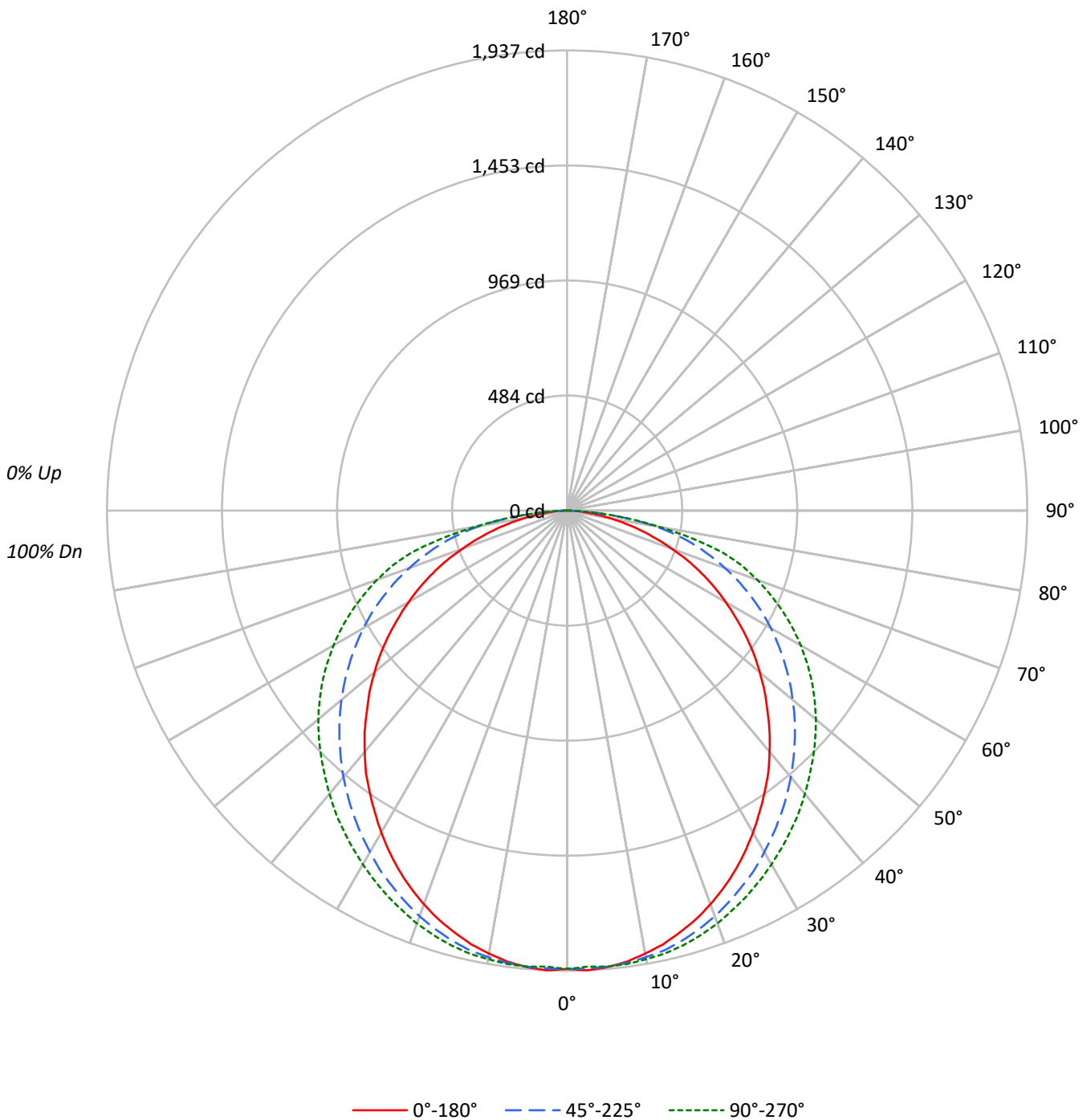
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2596	2596	2596
5°	2606	2603	2603
10°	2587	2608	2619
15°	2560	2610	2637
20°	2525	2603	2648
25°	2482	2589	2657
30°	2431	2579	2672
35°	2380	2573	2697
40°	2328	2573	2734
45°	2268	2579	2787
50°	2215	2595	2862
55°	2151	2623	2950
60°	2076	2665	3057
65°	1986	2716	3185
70°	1842	2783	3348
75°	1668	2880	3502
80°	1406	2888	3011
85°	1078	2184	2184



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.1	3.0
10°-20°	526.9	8.7
20°-30°	800.3	13.3
30°-40°	973.4	16.1
40°-50°	1036.4	17.2
50°-60°	987.1	16.4
60°-70°	825.5	13.7
70°-80°	550.4	9.1
80°-90°	152.3	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°	1510.3	25.0
0°-40°	2483.7	41.2
0°-60°	4507.2	74.7
0°-90°	6035.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6035.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1929	1929	1929	1929	1929	
5°	1929	1917	1927	1927	1927	183
15°	1838	1842	1873	1887	1893	518
25°	1672	1694	1744	1774	1790	770
35°	1449	1491	1566	1618	1642	907
45°	1192	1256	1355	1431	1465	921
55°	917	996	1118	1216	1258	820
65°	624	716	853	959	1000	616
75°	321	422	554	648	674	340
85°	70	130	142	140	142	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1929.2	1929.2	1929.2	1929.2	1929.2
2.5°	1937.1	1923.2	1929.2	1929.2	1921.2
5°	1929.2	1917.2	1927.2	1927.2	1927.2
7.5°	1915.2	1905.3	1921.2	1925.2	1925.2
10°	1893.3	1889.3	1909.2	1915.2	1917.2
12.5°	1869.4	1867.4	1895.3	1903.3	1909.2
15°	1837.5	1841.5	1873.4	1887.3	1893.3
17.5°	1803.6	1811.6	1847.5	1867.4	1873.4
20°	1763.8	1775.7	1817.6	1837.5	1849.5
22.5°	1719.9	1737.9	1781.7	1805.6	1819.6
25°	1672.1	1694.0	1743.8	1773.7	1789.7
27.5°	1620.3	1648.2	1706.0	1739.8	1755.8
30°	1564.5	1596.4	1660.1	1700.0	1719.9
32.5°	1506.7	1544.5	1614.3	1658.1	1682.0
35°	1448.9	1490.7	1566.5	1618.3	1642.2
37.5°	1391.1	1432.9	1516.6	1572.4	1602.3
40°	1325.3	1375.1	1464.8	1526.6	1556.5
42.5°	1261.5	1315.3	1411.0	1478.8	1510.7
45°	1191.8	1255.6	1355.2	1430.9	1464.8
47.5°	1128.0	1191.8	1299.4	1379.1	1417.0
50°	1058.3	1126.0	1239.6	1327.3	1367.2
52.5°	990.5	1060.2	1179.8	1273.5	1313.4
55°	916.8	996.5	1118.0	1215.7	1257.6
57.5°	843.0	928.7	1054.3	1155.9	1197.8
60°	771.3	859.0	990.5	1092.1	1136.0
62.5°	699.5	787.2	924.7	1028.4	1070.2
65°	623.8	715.5	853.0	958.6	1000.5
67.5°	548.1	643.7	781.2	886.9	926.7
70°	468.3	570.0	707.5	811.1	851.0
72.5°	394.6	496.2	631.8	733.4	771.3
75°	320.9	422.5	554.0	647.7	673.6
77.5°	249.1	350.8	468.3	530.1	536.1
80°	181.4	277.0	372.7	390.6	388.6
82.5°	121.6	207.3	257.1	259.1	265.1
85°	69.8	129.5	141.5	139.5	141.5
87.5°	27.9	45.8	39.9	29.9	29.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)