

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: P389051

Luminaire Tested: **24CZ2-70HE-SQR-UNV-L950-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: P389051
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-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: 6111.2 lumens
Efficiency: N/A
Efficacy: 119.8 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

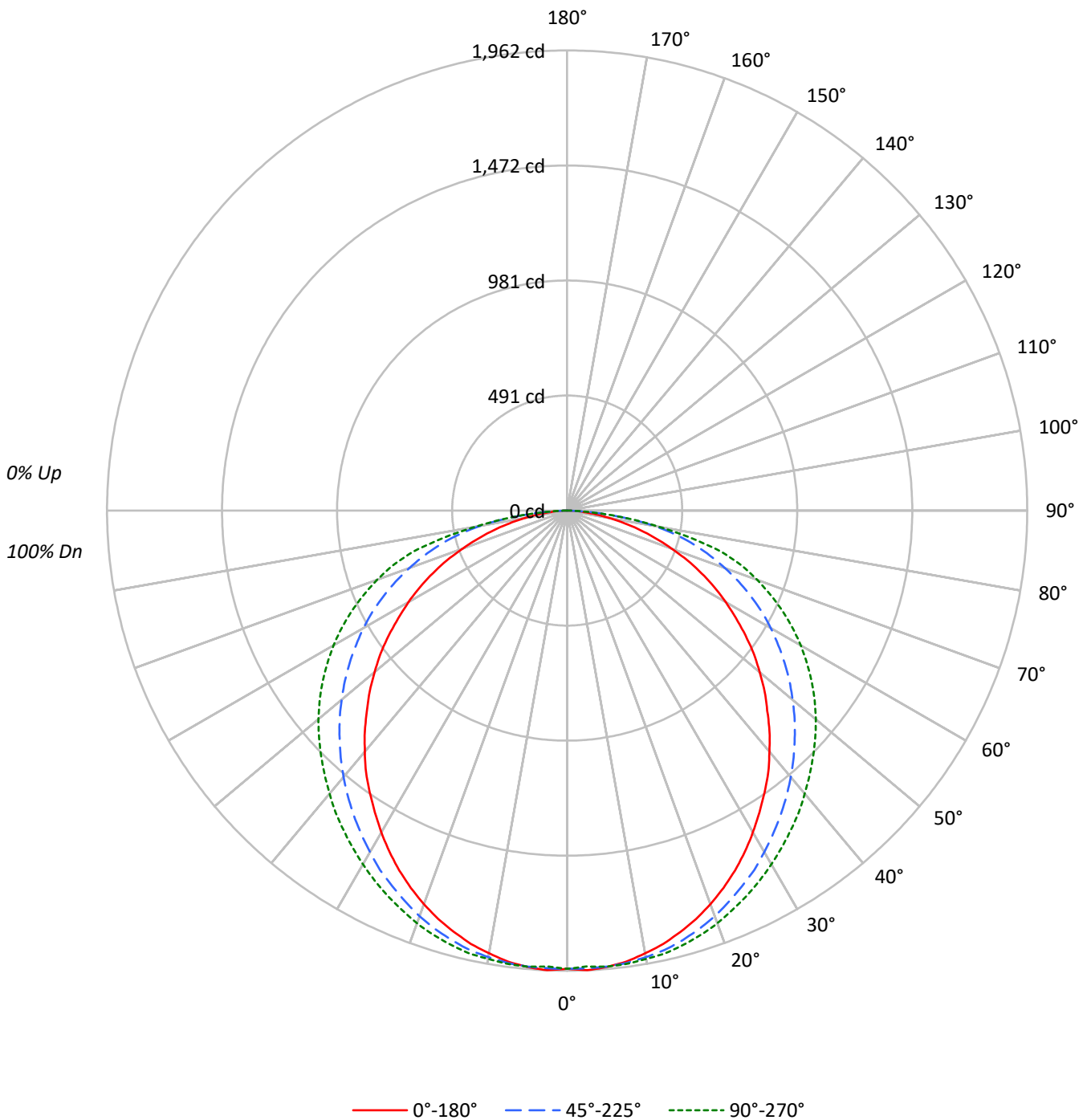
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2628	2628	2628
5°	2638	2636	2636
10°	2619	2641	2652
15°	2592	2642	2670
20°	2557	2635	2681
25°	2514	2621	2690
30°	2461	2612	2706
35°	2410	2605	2731
40°	2357	2605	2768
45°	2296	2611	2822
50°	2243	2627	2898
55°	2178	2656	2987
60°	2102	2699	3095
65°	2011	2750	3225
70°	1865	2818	3390
75°	1689	2916	3546
80°	1423	2924	3049
85°	1090	2212	2212



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.4	3.0
10°-20°	533.5	8.7
20°-30°	810.3	13.3
30°-40°	985.7	16.1
40°-50°	1049.4	17.2
50°-60°	999.5	16.4
60°-70°	835.9	13.7
70°-80°	557.3	9.1
80°-90°	154.2	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°	1529.2	25.0
0°-40°	2514.9	41.2
0°-60°	4563.8	74.7
0°-90°	6111.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6111.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1953	1953	1953	1953	1953	
5°	1953	1941	1951	1951	1951	185
15°	1861	1865	1897	1911	1917	525
25°	1693	1715	1766	1796	1812	780
35°	1467	1510	1586	1639	1663	918
45°	1207	1271	1372	1449	1483	933
55°	928	1009	1132	1231	1273	830
65°	632	724	864	971	1013	624
75°	325	428	561	656	682	344
85°	71	131	143	141	143	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1953.4	1953.4	1953.4	1953.4	1953.4
2.5°	1961.5	1947.4	1953.4	1953.4	1945.4
5°	1953.4	1941.3	1951.4	1951.4	1951.4
7.5°	1939.3	1929.2	1945.4	1949.4	1949.4
10°	1917.1	1913.1	1933.3	1939.3	1941.3
12.5°	1892.9	1890.9	1919.1	1927.2	1933.3
15°	1860.6	1864.6	1896.9	1911.1	1917.1
17.5°	1826.3	1834.4	1870.7	1890.9	1896.9
20°	1785.9	1798.0	1840.4	1860.6	1872.7
22.5°	1741.5	1759.7	1804.1	1828.3	1842.4
25°	1693.1	1715.3	1765.8	1796.0	1812.2
27.5°	1640.6	1668.9	1727.4	1761.7	1777.9
30°	1584.1	1616.4	1681.0	1721.4	1741.5
32.5°	1525.6	1564.0	1634.6	1679.0	1703.2
35°	1467.1	1509.5	1586.2	1638.6	1662.8
37.5°	1408.6	1451.0	1535.7	1592.2	1622.5
40°	1342.0	1392.4	1483.2	1545.8	1576.1
42.5°	1277.4	1331.9	1428.8	1497.4	1529.7
45°	1206.8	1271.3	1372.2	1448.9	1483.2
47.5°	1142.2	1206.8	1315.7	1396.5	1434.8
50°	1071.6	1140.2	1255.2	1344.0	1384.4
52.5°	1003.0	1073.6	1194.7	1289.5	1329.9
55°	928.3	1009.0	1132.1	1231.0	1273.4
57.5°	853.6	940.4	1067.5	1170.4	1212.8
60°	781.0	869.8	1003.0	1105.9	1150.3
62.5°	708.3	797.1	936.4	1041.3	1083.7
65°	631.6	724.5	863.7	970.7	1013.0
67.5°	555.0	651.8	791.1	898.0	938.4
70°	474.2	577.2	716.4	821.3	861.7
72.5°	399.6	502.5	639.7	742.6	781.0
75°	324.9	427.8	561.0	655.9	682.1
77.5°	252.3	355.2	474.2	536.8	542.8
80°	183.6	280.5	377.4	395.5	393.5
82.5°	123.1	209.9	260.3	262.3	268.4
85°	70.6	131.2	143.3	141.3	143.3
87.5°	28.3	46.4	40.4	30.3	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)