

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: P389114

Luminaire Tested: **24CZ2-75VHE-SQR-UNV-L930-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: P389114
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: 24CZ2-75VHE-SQR-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6071.2 lumens
Efficiency: N/A
Efficacy: 121.7 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

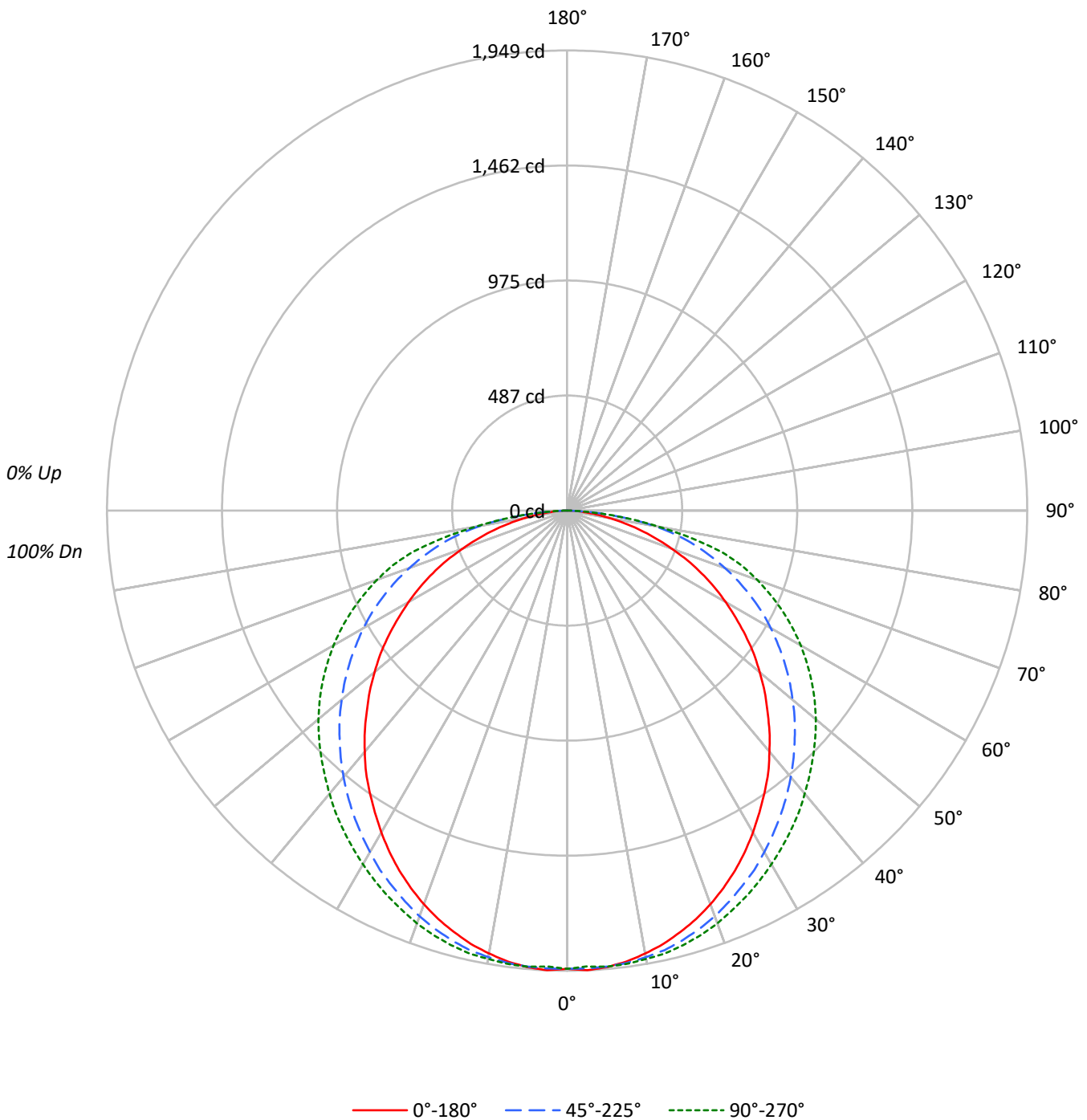
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2611	2611	2611
5°	2621	2618	2618
10°	2602	2624	2635
15°	2575	2625	2653
20°	2541	2618	2664
25°	2497	2604	2673
30°	2445	2595	2688
35°	2394	2588	2713
40°	2342	2588	2750
45°	2281	2594	2804
50°	2228	2610	2879
55°	2163	2638	2967
60°	2088	2681	3075
65°	1998	2732	3204
70°	1853	2800	3368
75°	1678	2897	3523
80°	1413	2905	3029
85°	1084	2197	2197



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.2	3.0
10°-20°	530.0	8.7
20°-30°	805.0	13.3
30°-40°	979.2	16.1
40°-50°	1042.5	17.2
50°-60°	993.0	16.4
60°-70°	830.4	13.7
70°-80°	553.6	9.1
80°-90°	153.2	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°	1519.2	25.0
0°-40°	2498.5	41.2
0°-60°	4534.0	74.7
0°-90°	6071.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6071.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1941	1941	1941	1941	1941	
5°	1941	1929	1939	1939	1939	184
15°	1848	1852	1884	1899	1905	521
25°	1682	1704	1754	1784	1800	774
35°	1458	1500	1576	1628	1652	912
45°	1199	1263	1363	1439	1474	927
55°	922	1002	1125	1223	1265	824
65°	628	720	858	964	1006	620
75°	323	425	557	652	678	342
85°	70	130	142	140	142	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1940.7	1940.7	1940.7	1940.7	1940.7
2.5°	1948.7	1934.6	1940.7	1940.7	1932.6
5°	1940.7	1928.6	1938.6	1938.6	1938.6
7.5°	1926.6	1916.6	1932.6	1936.6	1936.6
10°	1904.6	1900.6	1920.6	1926.6	1928.6
12.5°	1880.5	1878.5	1906.6	1914.6	1920.6
15°	1848.4	1852.4	1884.5	1898.6	1904.6
17.5°	1814.3	1822.4	1858.5	1878.5	1884.5
20°	1774.3	1786.3	1828.4	1848.4	1860.5
22.5°	1730.1	1748.2	1792.3	1816.4	1830.4
25°	1682.0	1704.1	1754.2	1784.3	1800.3
27.5°	1629.9	1658.0	1716.1	1750.2	1766.2
30°	1573.8	1605.8	1670.0	1710.1	1730.1
32.5°	1515.6	1553.7	1623.9	1668.0	1692.1
35°	1457.5	1499.6	1575.8	1627.9	1652.0
37.5°	1399.4	1441.5	1525.7	1581.8	1611.9
40°	1333.2	1383.3	1473.5	1535.7	1565.8
42.5°	1269.0	1323.2	1419.4	1487.6	1519.6
45°	1198.9	1263.0	1363.3	1439.4	1473.5
47.5°	1134.7	1198.9	1307.1	1387.3	1425.4
50°	1064.6	1132.7	1247.0	1335.2	1375.3
52.5°	996.4	1066.6	1186.8	1281.1	1321.2
55°	922.2	1002.4	1124.7	1222.9	1265.0
57.5°	848.0	934.2	1060.5	1162.8	1204.9
60°	775.9	864.1	996.4	1098.6	1142.7
62.5°	703.7	791.9	930.2	1034.5	1076.6
65°	627.5	719.7	858.1	964.3	1006.4
67.5°	551.3	647.6	785.9	892.1	932.2
70°	471.1	573.4	711.7	816.0	856.1
72.5°	397.0	499.2	635.5	737.8	775.9
75°	322.8	425.0	557.3	651.6	677.6
77.5°	250.6	352.8	471.1	533.3	539.3
80°	182.4	278.7	374.9	392.9	390.9
82.5°	122.3	208.5	258.6	260.6	266.6
85°	70.2	130.3	142.3	140.3	142.3
87.5°	28.1	46.1	40.1	30.1	30.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)