

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: P388297

Luminaire Tested: **24CZ2-100VHE-SQR-UNV-L930-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: P388297  
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: 24CZ2-100VHE-SQR-UNV-L930-CD1-SWPD1-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: 7975.0 lumens  
Efficiency: N/A  
Efficacy: 114.6 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

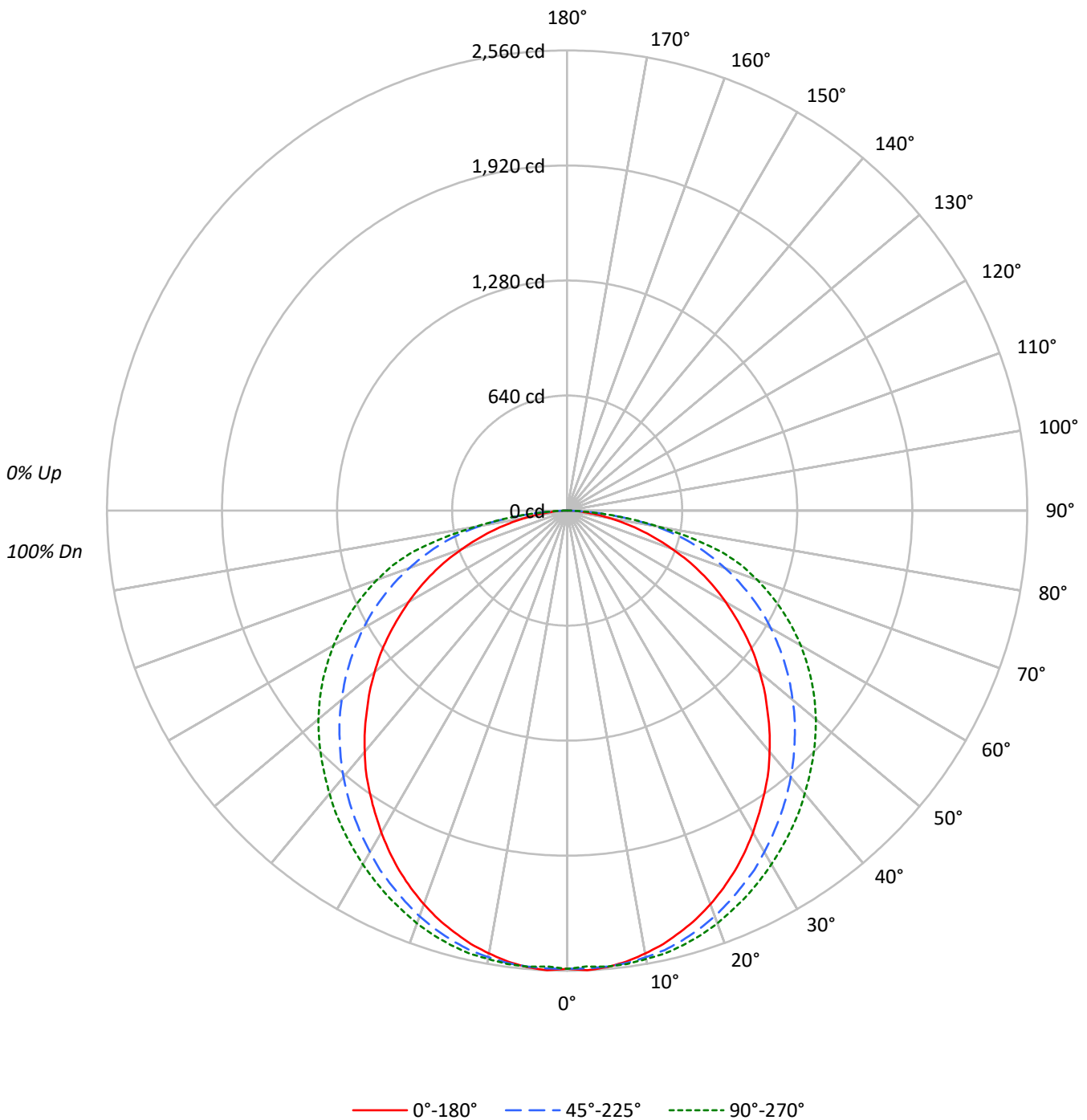
Input Watts (W): 69.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3430	3430	3430
5°	3443	3440	3440
10°	3418	3447	3461
15°	3382	3448	3485
20°	3337	3439	3499
25°	3280	3421	3511
30°	3212	3408	3531
35°	3145	3400	3564
40°	3076	3400	3612
45°	2997	3408	3683
50°	2927	3429	3782
55°	2842	3466	3898
60°	2743	3522	4039
65°	2624	3588	4209
70°	2435	3678	4424
75°	2204	3806	4627
80°	1857	3816	3979
85°	1423	2887	2887



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	242.0	3.0
10°-20°	696.2	8.7
20°-30°	1057.5	13.3
30°-40°	1286.3	16.1
40°-50°	1369.5	17.2
50°-60°	1304.3	16.4
60°-70°	1090.8	13.7
70°-80°	727.3	9.1
80°-90°	201.2	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°	1995.6	25.0
0°-40°	3281.9	41.2
0°-60°	5955.7	74.7
0°-90°	7975.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7975.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2549	2549	2549	2549	2549	
5°	2549	2533	2547	2547	2547	242
15°	2428	2433	2476	2494	2502	685
25°	2210	2238	2304	2344	2365	1017
35°	1914	1970	2070	2138	2170	1198
45°	1575	1659	1791	1891	1936	1217
55°	1211	1317	1477	1606	1662	1083
65°	824	945	1127	1267	1322	814
75°	424	558	732	856	890	449
85°	92	171	187	184	187	111
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2549.2	2549.2	2549.2	2549.2	2549.2
2.5°	2559.7	2541.3	2549.2	2549.2	2538.7
5°	2549.2	2533.4	2546.6	2546.6	2546.6
7.5°	2530.8	2517.6	2538.7	2543.9	2543.9
10°	2501.8	2496.5	2522.9	2530.8	2533.4
12.5°	2470.2	2467.6	2504.4	2515.0	2522.9
15°	2428.1	2433.3	2475.5	2493.9	2501.8
17.5°	2383.3	2393.8	2441.2	2467.6	2475.5
20°	2330.6	2346.4	2401.7	2428.1	2443.9
22.5°	2272.7	2296.4	2354.3	2385.9	2404.4
25°	2209.5	2238.4	2304.3	2343.8	2364.9
27.5°	2141.0	2177.9	2254.2	2299.0	2320.1
30°	2067.3	2109.4	2193.7	2246.3	2272.7
32.5°	1990.9	2040.9	2133.1	2191.0	2222.6
35°	1914.5	1969.8	2069.9	2138.4	2170.0
37.5°	1838.2	1893.5	2004.1	2077.8	2117.3
40°	1751.3	1817.1	1935.6	2017.2	2056.7
42.5°	1667.0	1738.1	1864.5	1954.0	1996.2
45°	1574.8	1659.1	1790.8	1890.8	1935.6
47.5°	1490.5	1574.8	1717.0	1822.4	1872.4
50°	1398.4	1487.9	1638.0	1753.9	1806.6
52.5°	1308.8	1401.0	1559.0	1682.8	1735.5
55°	1211.4	1316.7	1477.4	1606.4	1661.7
57.5°	1114.0	1227.2	1393.1	1527.4	1582.7
60°	1019.2	1135.0	1308.8	1443.1	1501.1
62.5°	924.3	1040.2	1221.9	1358.9	1414.2
65°	824.3	945.4	1127.1	1266.7	1322.0
67.5°	724.2	850.6	1032.3	1171.9	1224.6
70°	618.9	753.2	934.9	1071.8	1124.5
72.5°	521.4	655.7	834.8	969.1	1019.2
75°	424.0	558.3	732.1	855.9	890.1
77.5°	329.2	463.5	618.9	700.5	708.4
80°	239.6	366.1	492.5	516.2	513.5
82.5°	160.6	273.9	339.7	342.4	350.3
85°	92.2	171.2	187.0	184.3	187.0
87.5°	36.9	60.6	52.7	39.5	39.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)