

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: P389088

Luminaire Tested: **24CZ2-75HE-SQR-UNV-L930-CD1-SDWPD1-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: P389088  
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: 24CZ2-75HE-SQR-UNV-L930-CD1-SDWPD1-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: 5854.0 lumens  
Efficiency: N/A  
Efficacy: 105.7 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

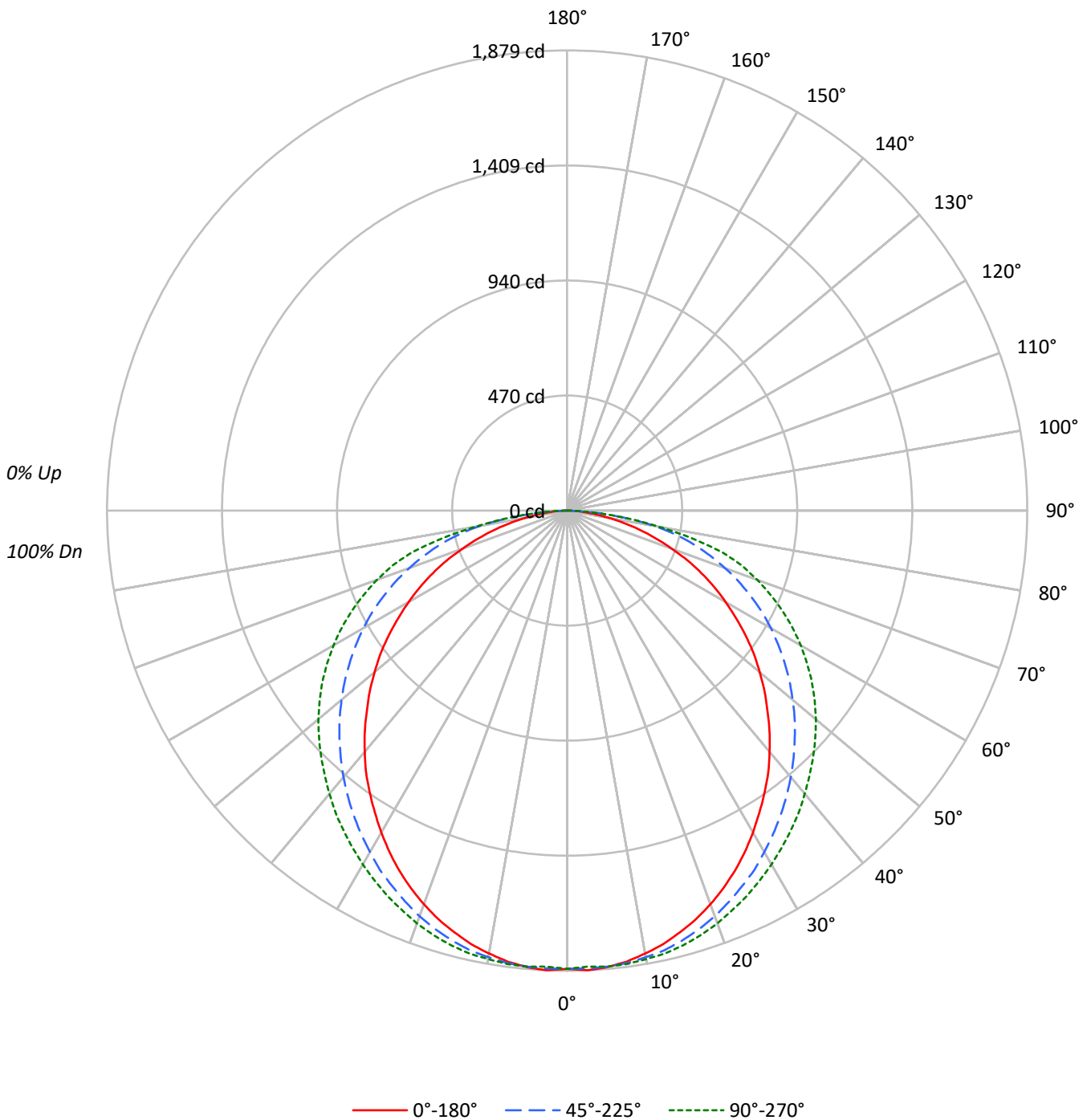
Input Watts (W): 55.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2518	2518	2518
5°	2527	2525	2525
10°	2509	2530	2541
15°	2483	2531	2558
20°	2450	2524	2569
25°	2408	2511	2577
30°	2358	2502	2592
35°	2308	2496	2616
40°	2258	2496	2652
45°	2200	2501	2704
50°	2149	2517	2776
55°	2086	2544	2861
60°	2013	2585	2965
65°	1926	2634	3089
70°	1787	2699	3247
75°	1618	2794	3397
80°	1363	2801	2921
85°	1045	2118	2118



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	177.6	3.0
10°-20°	511.0	8.7
20°-30°	776.2	13.3
30°-40°	944.2	16.1
40°-50°	1005.2	17.2
50°-60°	957.4	16.4
60°-70°	800.7	13.7
70°-80°	533.8	9.1
80°-90°	147.7	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°	1464.9	25.0
0°-40°	2409.1	41.2
0°-60°	4371.8	74.7
0°-90°	5854.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5854.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1871	1871	1871	1871	1871	
5°	1871	1860	1869	1869	1869	178
15°	1782	1786	1817	1831	1836	503
25°	1622	1643	1691	1720	1736	747
35°	1405	1446	1519	1570	1593	879
45°	1156	1218	1314	1388	1421	894
55°	889	966	1084	1179	1220	795
65°	605	694	827	930	970	598
75°	311	410	537	628	653	330
85°	68	126	137	135	137	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1871.2	1871.2	1871.2	1871.2	1871.2
2.5°	1879.0	1865.4	1871.2	1871.2	1863.5
5°	1871.2	1859.6	1869.3	1869.3	1869.3
7.5°	1857.7	1848.0	1863.5	1867.4	1867.4
10°	1836.4	1832.6	1851.9	1857.7	1859.6
12.5°	1813.2	1811.3	1838.4	1846.1	1851.9
15°	1782.3	1786.2	1817.1	1830.6	1836.4
17.5°	1749.4	1757.2	1792.0	1811.3	1817.1
20°	1710.8	1722.4	1763.0	1782.3	1793.9
22.5°	1668.2	1685.6	1728.2	1751.4	1764.9
25°	1621.9	1643.1	1691.4	1720.4	1735.9
27.5°	1571.6	1598.7	1654.7	1687.6	1703.0
30°	1517.5	1548.4	1610.3	1648.9	1668.2
32.5°	1461.4	1498.1	1565.8	1608.3	1631.5
35°	1405.4	1445.9	1519.4	1569.7	1592.9
37.5°	1349.3	1389.9	1471.1	1525.2	1554.2
40°	1285.5	1333.8	1420.8	1480.7	1509.7
42.5°	1223.6	1275.8	1368.6	1434.3	1465.3
45°	1156.0	1217.8	1314.5	1388.0	1420.8
47.5°	1094.1	1156.0	1260.4	1337.7	1374.4
50°	1026.5	1092.2	1202.4	1287.4	1326.1
52.5°	960.7	1028.4	1144.4	1235.2	1273.9
55°	889.2	966.5	1084.5	1179.2	1219.8
57.5°	817.7	900.8	1022.6	1121.2	1161.8
60°	748.1	833.2	960.7	1059.3	1101.9
62.5°	678.5	763.6	896.9	997.5	1038.1
65°	605.1	694.0	827.4	929.8	970.4
67.5°	531.6	624.4	757.8	860.2	898.9
70°	454.3	552.9	686.2	786.8	825.4
72.5°	382.8	481.3	612.8	711.4	748.1
75°	311.2	409.8	537.4	628.3	653.4
77.5°	241.6	340.2	454.3	514.2	520.0
80°	175.9	268.7	361.5	378.9	377.0
82.5°	117.9	201.0	249.4	251.3	257.1
85°	67.7	125.7	137.2	135.3	137.2
87.5°	27.1	44.5	38.7	29.0	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)