

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: P389219

Luminaire Tested: **24CZ2-95VHE-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: P389219  
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: 24CZ2-95VHE-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**

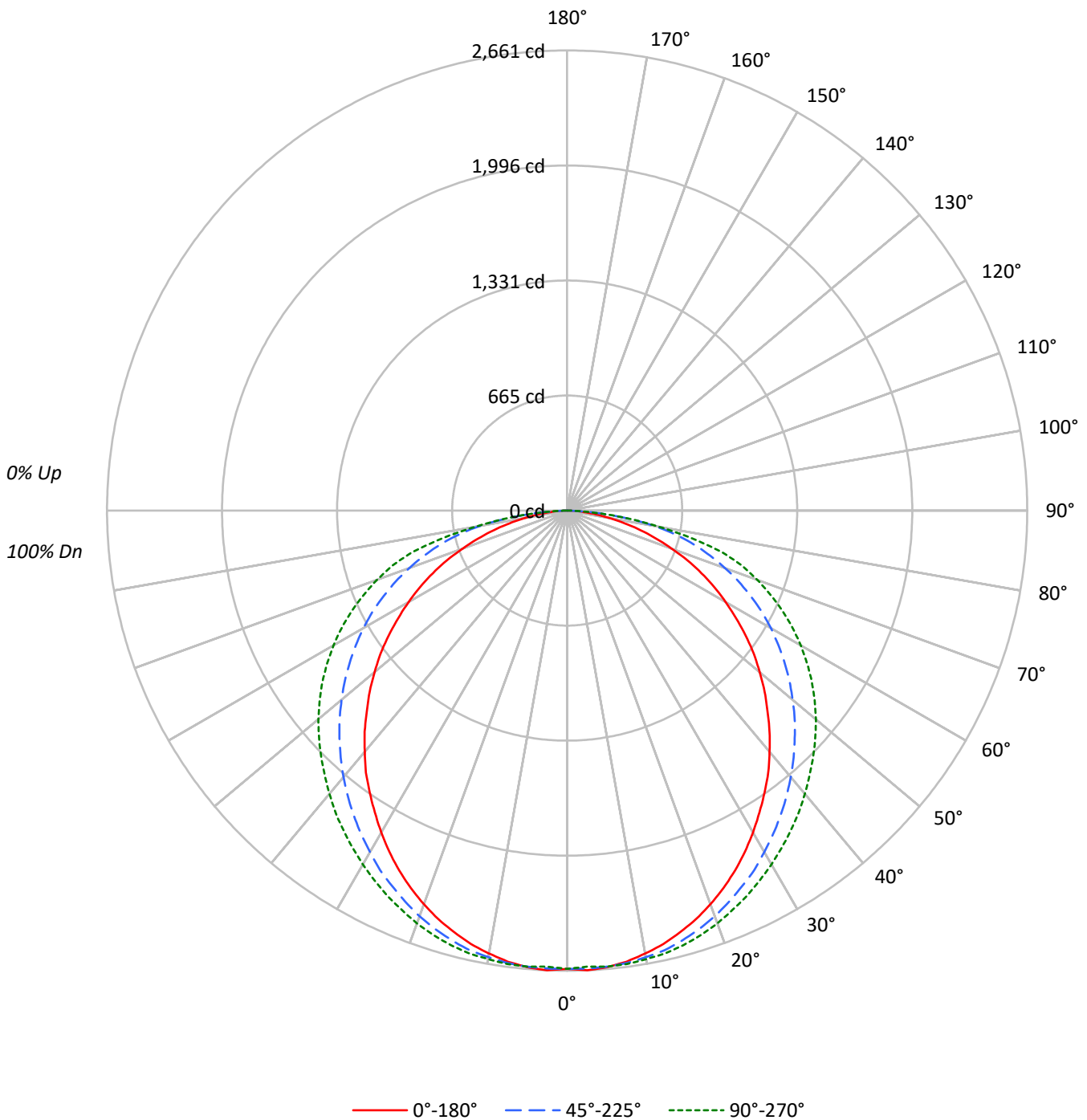
Lumens per Lamp: N/A  
Luminaire Lumens: 8290.7 lumens  
Efficiency: N/A  
Efficacy: 126.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 65.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	3566	3566	3566
5°	3579	3576	3576
10°	3553	3583	3598
15°	3516	3585	3623
20°	3469	3575	3638
25°	3410	3556	3650
30°	3339	3543	3671
35°	3269	3534	3705
40°	3198	3534	3756
45°	3115	3542	3829
50°	3043	3565	3931
55°	2954	3603	4052
60°	2851	3661	4199
65°	2728	3730	4375
70°	2531	3823	4599
75°	2292	3957	4810
80°	1930	3967	4137
85°	1479	3001	3001



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	251.6	3.0
10°-20°	723.8	8.7
20°-30°	1099.3	13.3
30°-40°	1337.2	16.1
40°-50°	1423.7	17.2
50°-60°	1356.0	16.4
60°-70°	1134.0	13.7
70°-80°	756.1	9.1
80°-90°	209.2	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°	2074.6	25.0
0°-40°	3411.8	41.2
0°-60°	6191.5	74.7
0°-90°	8290.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8290.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2650	2650	2650	2650	2650	
5°	2650	2634	2647	2647	2647	251
15°	2524	2530	2574	2593	2601	712
25°	2297	2327	2396	2437	2458	1058
35°	1990	2048	2152	2223	2256	1245
45°	1637	1725	1862	1966	2012	1266
55°	1259	1369	1536	1670	1728	1126
65°	857	983	1172	1317	1374	847
75°	441	580	761	890	925	467
85°	96	178	194	192	194	116
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2650.1	2650.1	2650.1	2650.1	2650.1
2.5°	2661.1	2641.9	2650.1	2650.1	2639.2
5°	2650.1	2633.7	2647.4	2647.4	2647.4
7.5°	2630.9	2617.3	2639.2	2644.6	2644.6
10°	2600.8	2595.4	2622.7	2630.9	2633.7
12.5°	2568.0	2565.2	2603.6	2614.5	2622.7
15°	2524.2	2529.7	2573.5	2592.6	2600.8
17.5°	2477.6	2488.6	2537.9	2565.2	2573.5
20°	2422.9	2439.3	2496.8	2524.2	2540.6
22.5°	2362.7	2387.3	2447.5	2480.4	2499.5
25°	2296.9	2327.1	2395.5	2436.6	2458.5
27.5°	2225.8	2264.1	2343.5	2390.0	2411.9
30°	2149.1	2192.9	2280.5	2335.3	2362.7
32.5°	2069.7	2121.7	2217.6	2277.8	2310.6
35°	1990.3	2047.8	2151.8	2223.0	2255.9
37.5°	1910.9	1968.4	2083.4	2160.1	2201.1
40°	1820.6	1889.0	2012.2	2097.1	2138.2
42.5°	1733.0	1806.9	1938.3	2031.4	2075.2
45°	1637.2	1724.8	1861.6	1965.7	2012.2
47.5°	1549.5	1637.2	1785.0	1894.5	1946.5
50°	1453.7	1546.8	1702.9	1823.3	1878.1
52.5°	1360.6	1456.5	1620.7	1749.4	1804.2
55°	1259.4	1368.9	1535.9	1670.0	1727.5
57.5°	1158.1	1275.8	1448.3	1587.9	1645.4
60°	1059.5	1180.0	1360.6	1500.3	1560.5
62.5°	960.9	1081.4	1270.3	1412.7	1470.2
65°	856.9	982.8	1171.7	1316.8	1374.3
67.5°	752.9	884.3	1073.2	1218.3	1273.0
70°	643.4	783.0	971.9	1114.3	1169.0
72.5°	542.1	681.7	867.9	1007.5	1059.5
75°	440.8	580.4	761.1	889.8	925.3
77.5°	342.2	481.8	643.4	728.2	736.4
80°	249.1	380.5	512.0	536.6	533.9
82.5°	167.0	284.7	353.2	355.9	364.1
85°	95.8	178.0	194.4	191.6	194.4
87.5°	38.3	63.0	54.8	41.1	41.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)