

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: P389097

Luminaire Tested: **24CZ2-75HE-SQR-UNV-L950-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: P389097  
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-L950-CD1-SDWPD1-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: 6433.2 lumens  
Efficiency: N/A  
Efficacy: 116.1 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

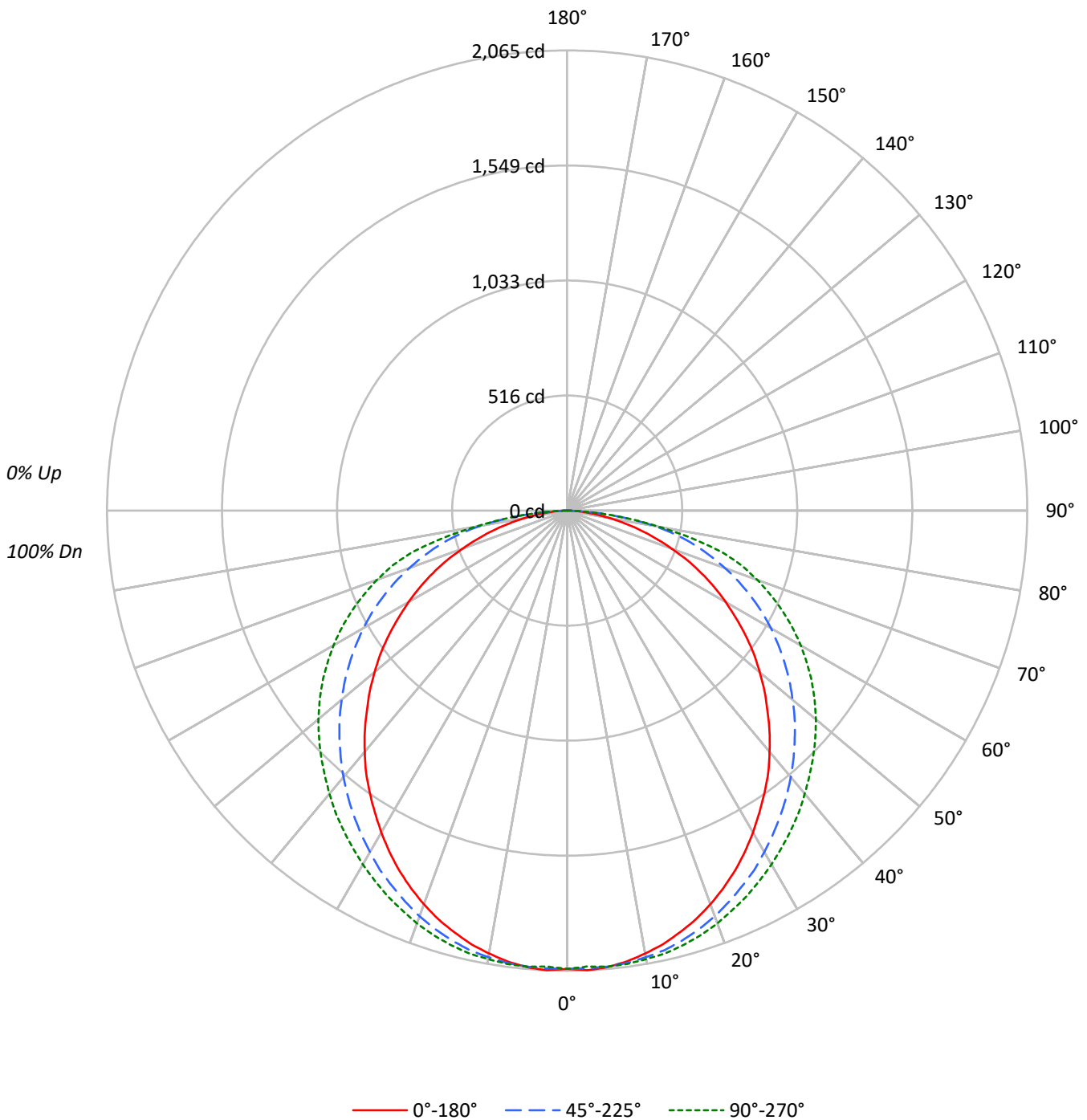
Input Watts (W): 55.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2767	2767	2767
5°	2777	2774	2774
10°	2757	2780	2792
15°	2728	2782	2811
20°	2692	2774	2823
25°	2646	2760	2832
30°	2591	2749	2848
35°	2537	2743	2875
40°	2481	2742	2914
45°	2417	2749	2971
50°	2361	2766	3050
55°	2292	2796	3145
60°	2212	2841	3259
65°	2117	2895	3395
70°	1964	2967	3568
75°	1778	3070	3733
80°	1498	3078	3209
85°	1149	2328	2328



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.2	3.0
10°-20°	561.6	8.7
20°-30°	853.0	13.3
30°-40°	1037.6	16.1
40°-50°	1104.7	17.2
50°-60°	1052.2	16.4
60°-70°	879.9	13.7
70°-80°	586.7	9.1
80°-90°	162.3	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°	1609.8	25.0
0°-40°	2647.4	41.2
0°-60°	4804.3	74.7
0°-90°	6433.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6433.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2056	2056	2056	2056	2056	
5°	2056	2044	2054	2054	2054	195
15°	1959	1963	1997	2012	2018	552
25°	1782	1806	1859	1891	1908	821
35°	1544	1589	1670	1725	1750	966
45°	1270	1338	1445	1525	1561	982
55°	977	1062	1192	1296	1340	874
65°	665	763	909	1022	1066	657
75°	342	450	591	690	718	362
85°	74	138	151	149	151	90
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2056.4	2056.4	2056.4	2056.4	2056.4
2.5°	2064.9	2050.0	2056.4	2056.4	2047.9
5°	2056.4	2043.6	2054.2	2054.2	2054.2
7.5°	2041.5	2030.9	2047.9	2052.1	2052.1
10°	2018.1	2013.9	2035.1	2041.5	2043.6
12.5°	1992.6	1990.5	2020.2	2028.7	2035.1
15°	1958.6	1962.9	1996.9	2011.8	2018.1
17.5°	1922.5	1931.0	1969.3	1990.5	1996.9
20°	1880.0	1892.8	1937.4	1958.6	1971.4
22.5°	1833.3	1852.4	1899.2	1924.7	1939.5
25°	1782.3	1805.7	1858.8	1890.7	1907.7
27.5°	1727.1	1756.8	1818.4	1854.6	1871.5
30°	1667.6	1701.6	1769.6	1812.1	1833.3
32.5°	1606.0	1646.4	1720.7	1767.5	1792.9
35°	1544.4	1589.0	1669.7	1725.0	1750.5
37.5°	1482.8	1527.4	1616.6	1676.1	1708.0
40°	1412.7	1465.8	1561.4	1627.2	1659.1
42.5°	1344.7	1402.1	1504.0	1576.3	1610.3
45°	1270.4	1338.3	1444.6	1525.3	1561.4
47.5°	1202.4	1270.4	1385.1	1470.0	1510.4
50°	1128.0	1200.3	1321.3	1414.8	1457.3
52.5°	1055.8	1130.2	1257.6	1357.5	1399.9
55°	977.2	1062.2	1191.8	1295.8	1340.5
57.5°	898.6	989.9	1123.8	1232.1	1276.7
60°	822.1	915.6	1055.8	1164.1	1210.9
62.5°	745.6	839.1	985.7	1096.2	1140.8
65°	664.9	762.6	909.2	1021.8	1066.4
67.5°	584.2	686.2	832.7	945.3	987.8
70°	499.2	607.6	754.1	864.6	907.1
72.5°	420.6	529.0	673.4	781.8	822.1
75°	342.0	450.4	590.6	690.4	718.0
77.5°	265.5	373.9	499.2	565.1	571.4
80°	193.3	295.3	397.3	416.4	414.2
82.5°	129.6	220.9	274.0	276.2	282.5
85°	74.4	138.1	150.8	148.7	150.8
87.5°	29.7	48.9	42.5	31.9	31.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)