

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: P388515

Luminaire Tested: **22CZ2-85VHE-UNV-L940-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: P388515  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-85VHE-UNV-L940-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

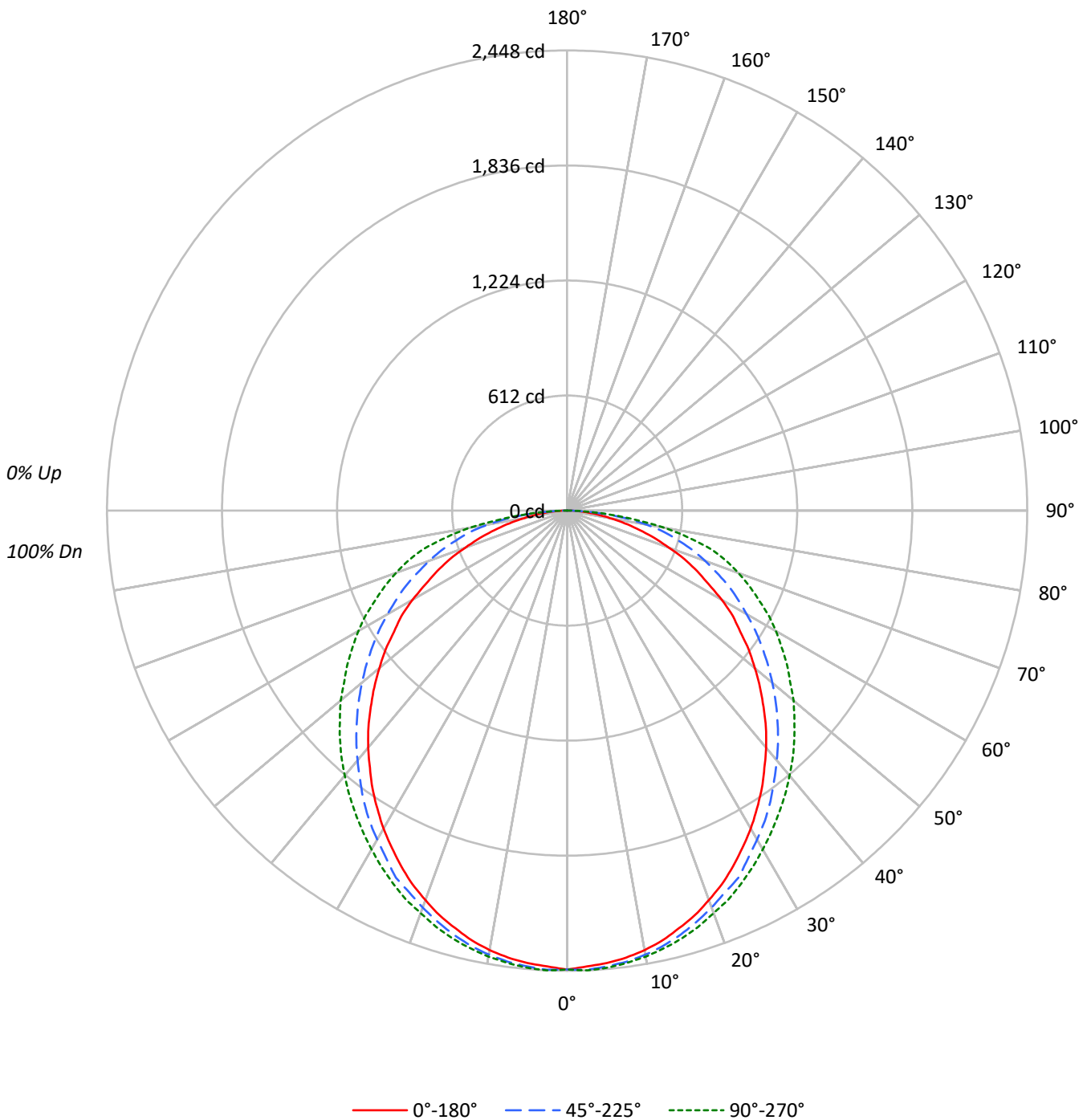
Lumens per Lamp: N/A  
Luminaire Lumens: 7180.2 lumens  
Efficiency: N/A  
Efficacy: 112.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 63.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6570	6570	6570
5°	6528	6576	6595
10°	6488	6555	6584
15°	6408	6506	6565
20°	6314	6435	6526
25°	6200	6399	6504
30°	6071	6280	6466
35°	5931	6198	6453
40°	5784	6094	6466
45°	5621	6024	6508
50°	5458	5961	6582
55°	5271	5934	6697
60°	5115	5933	6902
65°	4860	6029	7154
70°	4531	6143	7617
75°	4151	6355	8228
80°	3614	6625	8103
85°	3165	5891	6438



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	230.9	3.2
10°-20°	657.6	9.2
20°-30°	987.3	13.7
30°-40°	1179.7	16.4
40°-50°	1226.7	17.1
50°-60°	1136.9	15.8
60°-70°	932.6	13.0
70°-80°	630.4	8.8
80°-90°	198.1	2.8
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°	1875.8	26.1
0°-40°	3055.5	42.6
0°-60°	5419.1	75.5
0°-90°	7180.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7180.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2441	2441	2441	2441	2441	
5°	2417	2420	2434	2438	2441	229
15°	2300	2311	2335	2350	2357	649
25°	2088	2106	2155	2180	2190	962
35°	1805	1830	1887	1943	1964	1128
45°	1477	1505	1583	1675	1710	1140
55°	1124	1159	1265	1378	1427	1010
65°	763	806	947	1070	1124	754
75°	399	466	611	735	791	423
85°	102	141	191	212	208	116
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2441.4	2441.4	2441.4	2441.4	2441.4
2.5°	2427.3	2434.3	2444.9	2448.5	2448.5
5°	2416.7	2420.2	2434.3	2437.9	2441.4
7.5°	2399.0	2406.1	2420.2	2423.7	2427.3
10°	2374.3	2381.3	2399.0	2406.1	2409.6
12.5°	2342.5	2349.5	2370.7	2381.3	2384.9
15°	2300.1	2310.7	2335.4	2349.5	2356.6
17.5°	2257.7	2268.3	2293.0	2314.2	2321.3
20°	2204.7	2229.4	2247.1	2275.3	2278.9
22.5°	2151.7	2165.8	2197.6	2225.9	2240.0
25°	2088.1	2105.8	2155.2	2179.9	2190.5
27.5°	2021.0	2045.7	2084.6	2123.4	2137.6
30°	1953.8	1971.5	2021.0	2066.9	2081.0
32.5°	1879.6	1904.4	1957.4	2003.3	2024.5
35°	1805.4	1830.2	1886.7	1943.2	1964.4
37.5°	1724.2	1752.4	1809.0	1876.1	1904.4
40°	1646.4	1667.6	1734.8	1816.0	1840.8
42.5°	1565.2	1589.9	1660.6	1748.9	1777.2
45°	1476.9	1505.1	1582.8	1674.7	1710.0
47.5°	1392.1	1420.3	1505.1	1597.0	1639.4
50°	1303.7	1339.1	1423.9	1529.8	1572.2
52.5°	1218.9	1250.7	1346.1	1455.7	1494.5
55°	1123.5	1158.9	1264.9	1377.9	1427.4
57.5°	1045.8	1070.5	1187.1	1303.7	1353.2
60°	950.4	982.2	1102.3	1226.0	1282.5
62.5°	848.0	901.0	1024.6	1151.8	1208.3
65°	763.2	805.6	946.9	1070.5	1123.5
67.5°	674.8	720.8	858.6	989.3	1049.3
70°	575.9	636.0	780.8	911.6	968.1
72.5°	487.6	551.2	699.6	826.8	886.8
75°	399.2	466.4	611.2	734.9	791.4
77.5°	314.4	388.6	530.0	625.4	660.7
80°	233.2	303.9	427.5	494.6	522.9
82.5°	162.5	222.6	314.4	349.8	356.8
85°	102.5	141.3	190.8	212.0	208.5
87.5°	45.9	56.5	70.7	77.7	74.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)