

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: P391059

Luminaire Tested: **24CZ2-130VHE-RDP-UNV-L940-CD2-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: P391059  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-130VHE-RDP-UNV-L940-CD2-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7439.1 lumens  
Efficiency: N/A  
Efficacy: 82.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

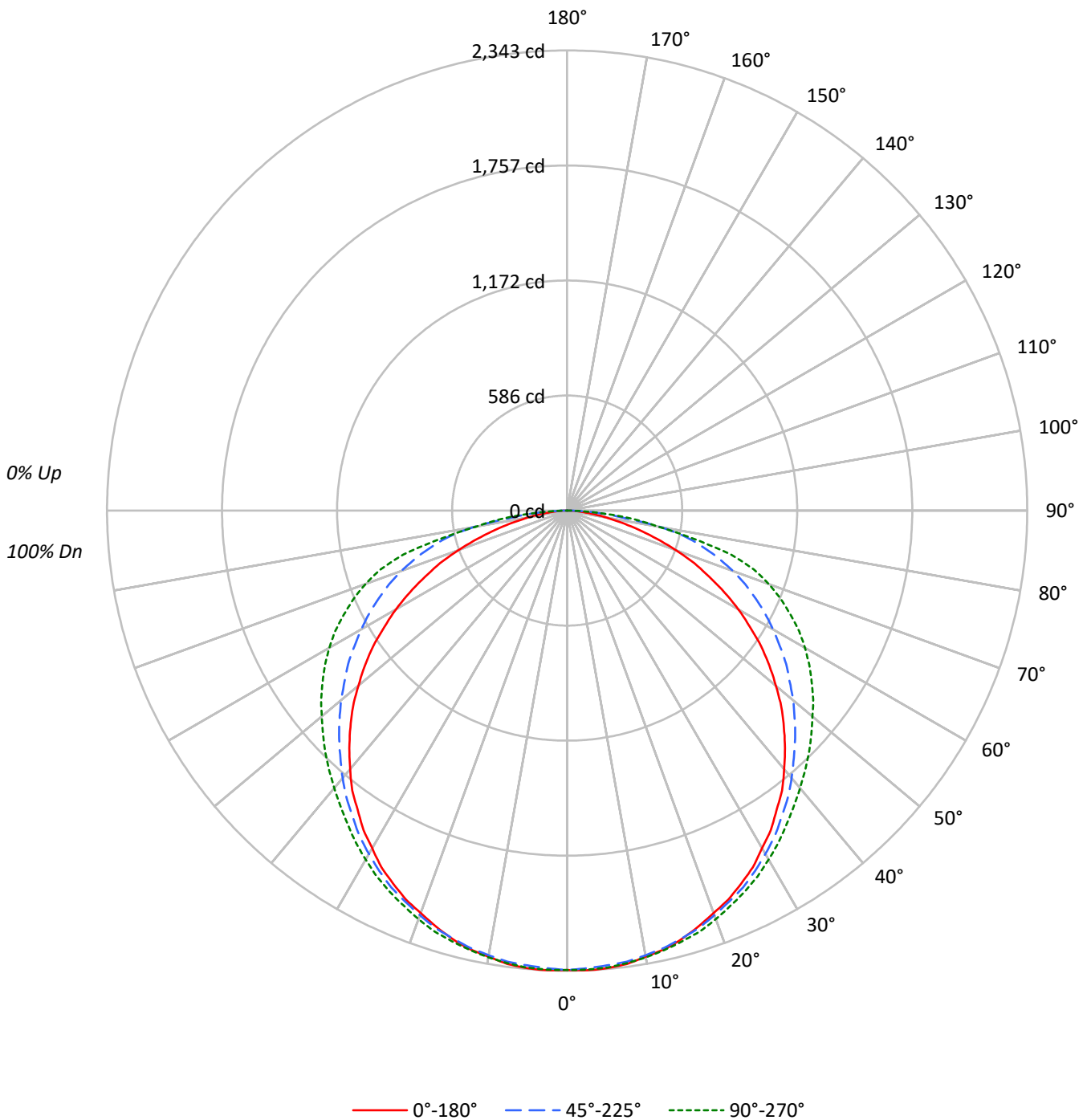
Input Watts (W): 90.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	3148	3148	3148
5°	3160	3140	3155
10°	3151	3141	3156
15°	3146	3140	3161
20°	3122	3138	3170
25°	3112	3144	3177
30°	3084	3136	3187
35°	3055	3127	3200
40°	3020	3124	3240
45°	2970	3124	3314
50°	2904	3144	3414
55°	2830	3194	3566
60°	2711	3257	3763
65°	2537	3372	3994
70°	2308	3527	4297
75°	1957	3721	4488
80°	1544	3746	3631
85°	1139	2848	3189



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	221.9	3.0
10°-20°	638.7	8.6
20°-30°	976.6	13.1
30°-40°	1193.9	16.0
40°-50°	1272.5	17.1
50°-60°	1216.7	16.4
60°-70°	1030.7	13.9
70°-80°	692.7	9.3
80°-90°	195.4	2.6
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°	1837.2	24.7
0°-40°	3031.2	40.7
0°-60°	5520.3	74.2
0°-90°	7439.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7439.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2339	2339	2339	2339	2339	
5°	2339	2336	2325	2336	2336	222
15°	2258	2258	2254	2273	2269	637
25°	2096	2103	2118	2136	2140	966
35°	1860	1874	1904	1941	1948	1165
45°	1561	1587	1642	1712	1742	1204
55°	1207	1251	1362	1469	1520	1075
65°	797	878	1059	1199	1255	791
75°	376	513	716	838	863	403
85°	74	151	184	199	207	91
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2339.4	2339.4	2339.4	2339.4	2339.4
2.5°	2343.1	2343.1	2332.0	2339.4	2339.4
5°	2339.4	2335.7	2324.6	2335.7	2335.7
7.5°	2328.3	2324.6	2317.2	2328.3	2324.6
10°	2306.2	2306.2	2298.8	2309.9	2309.9
12.5°	2287.7	2284.0	2280.3	2295.1	2291.4
15°	2258.2	2258.2	2254.5	2273.0	2269.3
17.5°	2221.3	2225.0	2228.7	2243.4	2247.1
20°	2180.7	2188.1	2191.8	2213.9	2213.9
22.5°	2143.8	2147.5	2154.9	2177.0	2177.0
25°	2095.9	2103.2	2118.0	2136.4	2140.1
27.5°	2047.9	2051.6	2070.0	2095.9	2099.5
30°	1985.2	1996.2	2018.4	2047.9	2051.6
32.5°	1929.8	1940.9	1966.7	1996.2	2003.6
35°	1859.7	1874.5	1904.0	1940.9	1948.3
37.5°	1797.0	1808.0	1844.9	1885.5	1896.6
40°	1719.5	1741.6	1778.5	1826.5	1844.9
42.5°	1642.0	1664.1	1708.4	1771.1	1793.3
45°	1560.8	1586.6	1642.0	1712.1	1741.6
47.5°	1479.6	1509.2	1571.9	1653.1	1686.3
50°	1387.4	1424.3	1501.8	1594.0	1630.9
52.5°	1298.8	1343.1	1428.0	1531.3	1579.3
55°	1206.6	1250.9	1361.6	1468.6	1520.2
57.5°	1103.3	1162.3	1284.1	1405.8	1461.2
60°	1007.3	1062.7	1210.3	1343.1	1398.5
62.5°	904.0	977.8	1136.5	1276.7	1332.0
65°	797.0	878.2	1059.0	1199.2	1254.6
67.5°	701.1	789.6	981.5	1121.7	1177.1
70°	586.7	697.4	896.6	1036.9	1092.2
72.5°	479.7	601.5	808.1	944.6	996.3
75°	376.4	512.9	715.8	837.6	863.4
77.5°	280.4	424.3	619.9	671.6	653.1
80°	199.3	339.5	483.4	457.5	468.6
82.5°	129.1	258.3	298.9	339.5	350.5
85°	73.8	151.3	184.5	199.3	206.6
87.5°	33.2	55.3	73.8	73.8	70.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)