

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: P391782

Luminaire Tested: **24CZ2-85VHE-RDP-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: P391782  
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: 24CZ2-85VHE-RDP-UNV-L950-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5116.9 lumens  
Efficiency: N/A  
Efficacy: 88.4 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

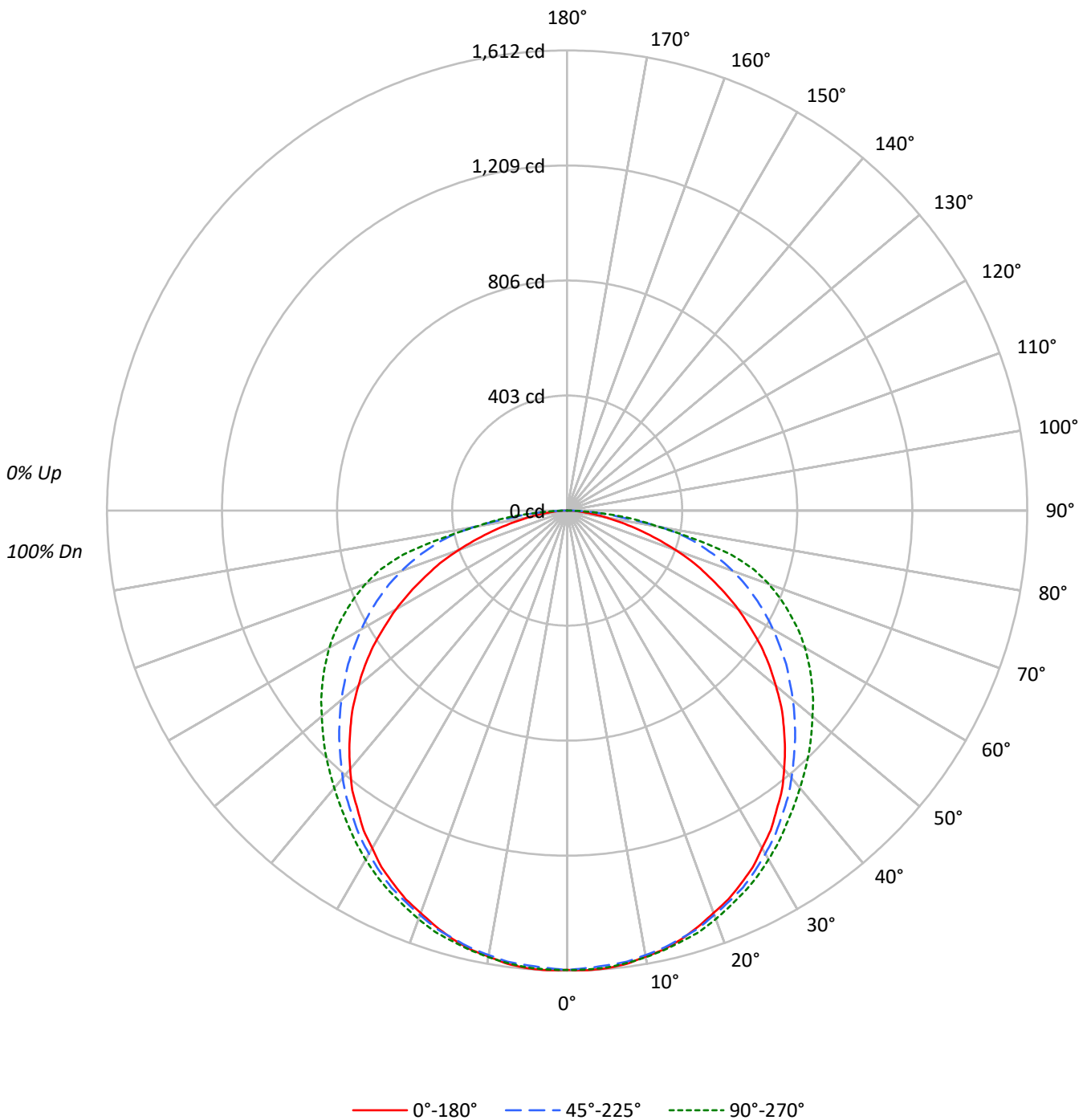
Input Watts (W): 57.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2165	2165	2165
5°	2173	2160	2170
10°	2167	2160	2171
15°	2164	2160	2174
20°	2148	2159	2180
25°	2140	2163	2185
30°	2121	2157	2192
35°	2101	2151	2201
40°	2077	2149	2229
45°	2043	2149	2280
50°	1998	2162	2348
55°	1947	2197	2453
60°	1865	2240	2588
65°	1745	2319	2747
70°	1587	2426	2956
75°	1346	2560	3087
80°	1062	2576	2497
85°	784	1959	2194



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.6	3.0
10°-20°	439.3	8.6
20°-30°	671.8	13.1
30°-40°	821.2	16.0
40°-50°	875.3	17.1
50°-60°	836.9	16.4
60°-70°	708.9	13.9
70°-80°	476.5	9.3
80°-90°	134.4	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°	1263.7	24.7
0°-40°	2084.9	40.7
0°-60°	3797.1	74.2
0°-90°	5116.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5116.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1609	1609	1609	1609	1609	
5°	1609	1607	1599	1607	1607	153
15°	1553	1553	1551	1563	1561	438
25°	1442	1447	1457	1470	1472	664
35°	1279	1289	1310	1335	1340	801
45°	1074	1091	1129	1178	1198	828
55°	830	860	936	1010	1046	739
65°	548	604	728	825	863	544
75°	259	353	492	576	594	277
85°	51	104	127	137	142	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1609.1	1609.1	1609.1	1609.1	1609.1
2.5°	1611.7	1611.7	1604.0	1609.1	1609.1
5°	1609.1	1606.6	1599.0	1606.6	1606.6
7.5°	1601.5	1599.0	1593.9	1601.5	1599.0
10°	1586.3	1586.3	1581.2	1588.8	1588.8
12.5°	1573.6	1571.0	1568.5	1578.7	1576.1
15°	1553.3	1553.3	1550.7	1563.4	1560.9
17.5°	1527.9	1530.4	1533.0	1543.1	1545.7
20°	1500.0	1505.1	1507.6	1522.8	1522.8
22.5°	1474.6	1477.1	1482.2	1497.4	1497.4
25°	1441.6	1446.7	1456.8	1469.5	1472.1
27.5°	1408.6	1411.2	1423.8	1441.6	1444.1
30°	1365.5	1373.1	1388.3	1408.6	1411.2
32.5°	1327.4	1335.0	1352.8	1373.1	1378.2
35°	1279.2	1289.3	1309.6	1335.0	1340.1
37.5°	1236.0	1243.6	1269.0	1296.9	1304.6
40°	1182.7	1198.0	1223.3	1256.3	1269.0
42.5°	1129.4	1144.7	1175.1	1218.3	1233.5
45°	1073.6	1091.4	1129.4	1177.7	1198.0
47.5°	1017.8	1038.1	1081.2	1137.0	1159.9
50°	954.3	979.7	1033.0	1096.4	1121.8
52.5°	893.4	923.8	982.2	1053.3	1086.3
55°	829.9	860.4	936.5	1010.1	1045.7
57.5°	758.9	799.5	883.2	967.0	1005.1
60°	692.9	731.0	832.5	923.8	961.9
62.5°	621.8	672.6	781.7	878.2	916.2
65°	548.2	604.1	728.4	824.9	862.9
67.5°	482.2	543.1	675.1	771.6	809.6
70°	403.5	479.7	616.7	713.2	751.3
72.5°	329.9	413.7	555.8	649.7	685.3
75°	258.9	352.8	492.4	576.1	593.9
77.5°	192.9	291.9	426.4	461.9	449.2
80°	137.1	233.5	332.5	314.7	322.3
82.5°	88.8	177.7	205.6	233.5	241.1
85°	50.8	104.1	126.9	137.1	142.1
87.5°	22.8	38.1	50.8	50.8	48.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)