

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: P391729

Luminaire Tested: **24CZ2-80VHE-RDP-UNV-L935-CD1-SWPD1-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: P391729  
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: 24CZ2-80VHE-RDP-UNV-L935-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4564.6 lumens  
Efficiency: N/A  
Efficacy: 84.8 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

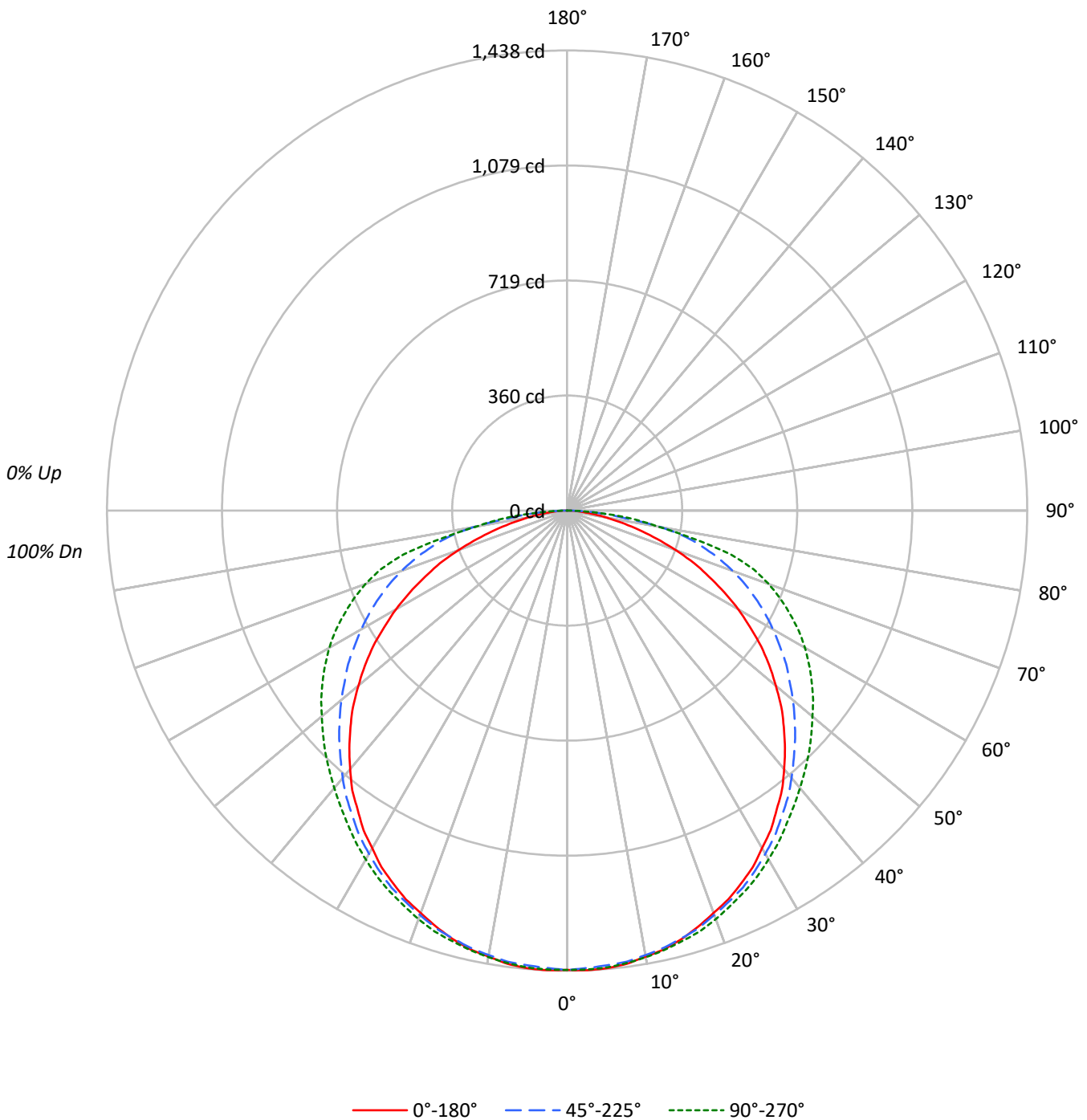
Input Watts (W): 53.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1931	1931	1931
5°	1939	1927	1936
10°	1933	1927	1936
15°	1930	1927	1940
20°	1916	1926	1945
25°	1909	1929	1950
30°	1892	1924	1956
35°	1874	1919	1963
40°	1853	1917	1988
45°	1822	1917	2034
50°	1782	1929	2095
55°	1737	1960	2188
60°	1663	1998	2309
65°	1557	2069	2451
70°	1416	2164	2637
75°	1200	2283	2754
80°	948	2298	2228
85°	699	1748	1958



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.2	3.0
10°-20°	391.9	8.6
20°-30°	599.3	13.1
30°-40°	732.6	16.0
40°-50°	780.8	17.1
50°-60°	746.5	16.4
60°-70°	632.4	13.9
70°-80°	425.0	9.3
80°-90°	119.9	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°	1127.3	24.7
0°-40°	1859.9	40.7
0°-60°	3387.3	74.2
0°-90°	4564.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4564.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1435	1435	1435	1435	1435	
5°	1435	1433	1426	1433	1433	136
15°	1386	1386	1383	1395	1392	391
25°	1286	1290	1300	1311	1313	593
35°	1141	1150	1168	1191	1195	715
45°	958	974	1008	1050	1069	739
55°	740	768	836	901	933	659
65°	489	539	650	736	770	486
75°	231	315	439	514	530	247
85°	45	93	113	122	127	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1435.4	1435.4	1435.4	1435.4	1435.4
2.5°	1437.7	1437.7	1430.9	1435.4	1435.4
5°	1435.4	1433.2	1426.4	1433.2	1433.2
7.5°	1428.6	1426.4	1421.9	1428.6	1426.4
10°	1415.1	1415.1	1410.5	1417.3	1417.3
12.5°	1403.7	1401.5	1399.2	1408.3	1406.0
15°	1385.6	1385.6	1383.4	1394.7	1392.4
17.5°	1363.0	1365.2	1367.5	1376.6	1378.8
20°	1338.1	1342.6	1344.9	1358.5	1358.5
22.5°	1315.4	1317.7	1322.2	1335.8	1335.8
25°	1286.0	1290.5	1299.6	1310.9	1313.2
27.5°	1256.6	1258.8	1270.2	1286.0	1288.3
30°	1218.1	1224.9	1238.5	1256.6	1258.8
32.5°	1184.1	1190.9	1206.8	1224.9	1229.4
35°	1141.1	1150.2	1168.3	1190.9	1195.4
37.5°	1102.6	1109.4	1132.0	1157.0	1163.7
40°	1055.1	1068.7	1091.3	1120.7	1132.0
42.5°	1007.5	1021.1	1048.3	1086.8	1100.4
45°	957.7	973.6	1007.5	1050.5	1068.7
47.5°	907.9	926.0	964.5	1014.3	1034.7
50°	851.3	873.9	921.5	978.1	1000.7
52.5°	797.0	824.1	876.2	939.6	969.0
55°	740.4	767.5	835.5	901.1	932.8
57.5°	677.0	713.2	787.9	862.6	896.6
60°	618.1	652.1	742.6	824.1	858.1
62.5°	554.7	600.0	697.3	783.4	817.3
65°	489.0	538.9	649.8	735.8	769.8
67.5°	430.2	484.5	602.2	688.3	722.2
70°	360.0	427.9	550.2	636.2	670.2
72.5°	294.3	369.0	495.8	579.6	611.3
75°	230.9	314.7	439.2	513.9	529.8
77.5°	172.1	260.4	380.4	412.1	400.7
80°	122.3	208.3	296.6	280.7	287.5
82.5°	79.2	158.5	183.4	208.3	215.1
85°	45.3	92.8	113.2	122.3	126.8
87.5°	20.4	34.0	45.3	45.3	43.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)