

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: P391777

Luminaire Tested: **24CZ2-85VHE-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: P391777
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-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: 4829.6 lumens
Efficiency: N/A
Efficacy: 83.4 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

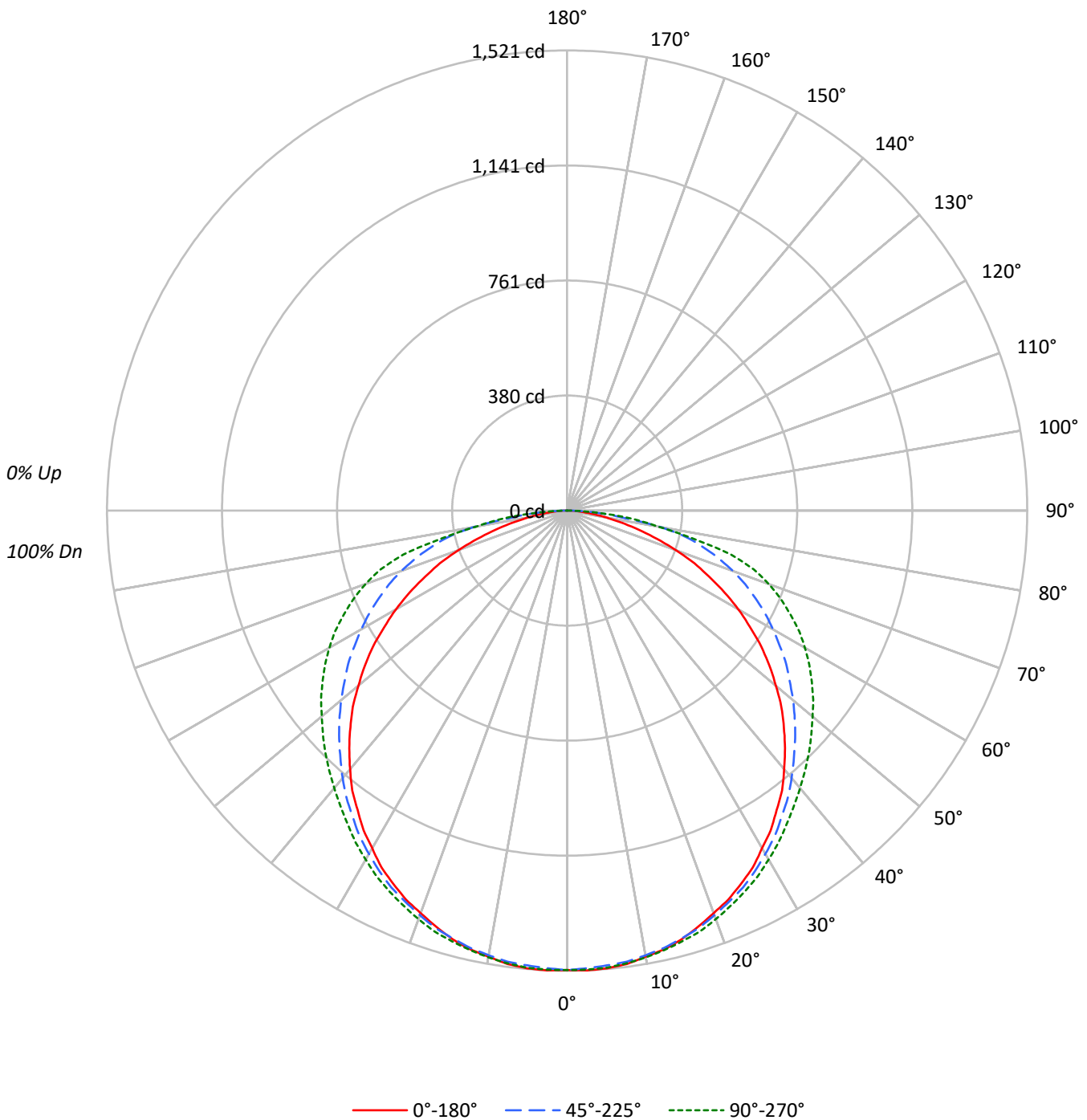
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2044	2044	2044
5°	2051	2038	2048
10°	2046	2039	2049
15°	2042	2039	2052
20°	2027	2037	2058
25°	2020	2041	2063
30°	2002	2036	2069
35°	1983	2030	2077
40°	1961	2028	2104
45°	1928	2028	2152
50°	1885	2041	2216
55°	1837	2074	2315
60°	1760	2114	2443
65°	1647	2189	2593
70°	1498	2290	2790
75°	1270	2416	2914
80°	1003	2431	2357
85°	739	1849	2072



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.1	3.0
10°-20°	414.6	8.6
20°-30°	634.1	13.1
30°-40°	775.1	16.0
40°-50°	826.1	17.1
50°-60°	789.9	16.4
60°-70°	669.1	13.9
70°-80°	449.7	9.3
80°-90°	126.9	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
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0°-30°	1192.8	24.7
0°-40°	1967.9	40.7
0°-60°	3583.9	74.2
0°-90°	4829.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4829.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1519	1519	1519	1519	1519	
5°	1519	1516	1509	1516	1516	144
15°	1466	1466	1464	1476	1473	413
25°	1361	1366	1375	1387	1389	627
35°	1207	1217	1236	1260	1265	756
45°	1013	1030	1066	1112	1131	782
55°	783	812	884	953	987	698
65°	517	570	688	778	814	514
75°	244	333	465	544	561	262
85°	48	98	120	129	134	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1518.8	1518.8	1518.8	1518.8	1518.8
2.5°	1521.2	1521.2	1514.0	1518.8	1518.8
5°	1518.8	1516.4	1509.2	1516.4	1516.4
7.5°	1511.6	1509.2	1504.4	1511.6	1509.2
10°	1497.2	1497.2	1492.4	1499.6	1499.6
12.5°	1485.2	1482.8	1480.4	1490.0	1487.6
15°	1466.1	1466.1	1463.7	1475.7	1473.3
17.5°	1442.1	1444.5	1446.9	1456.5	1458.9
20°	1415.8	1420.6	1422.9	1437.3	1437.3
22.5°	1391.8	1394.2	1399.0	1413.4	1413.4
25°	1360.7	1365.5	1375.0	1387.0	1389.4
27.5°	1329.5	1331.9	1343.9	1360.7	1363.1
30°	1288.8	1296.0	1310.4	1329.5	1331.9
32.5°	1252.9	1260.1	1276.8	1296.0	1300.8
35°	1207.4	1216.9	1236.1	1260.1	1264.8
37.5°	1166.6	1173.8	1197.8	1224.1	1231.3
40°	1116.3	1130.7	1154.6	1185.8	1197.8
42.5°	1066.0	1080.4	1109.1	1149.9	1164.2
45°	1013.3	1030.1	1066.0	1111.5	1130.7
47.5°	960.6	979.8	1020.5	1073.2	1094.8
50°	900.7	924.7	975.0	1034.9	1058.8
52.5°	843.2	872.0	927.1	994.1	1025.3
55°	783.3	812.1	884.0	953.4	987.0
57.5°	716.3	754.6	833.6	912.7	948.6
60°	654.0	689.9	785.7	872.0	907.9
62.5°	586.9	634.8	737.8	828.9	864.8
65°	517.4	570.1	687.5	778.5	814.5
67.5°	455.2	512.6	637.2	728.2	764.2
70°	380.9	452.8	582.1	673.1	709.1
72.5°	311.4	390.5	524.6	613.3	646.8
75°	244.3	333.0	464.7	543.8	560.6
77.5°	182.1	275.5	402.5	436.0	424.0
80°	129.4	220.4	313.8	297.0	304.2
82.5°	83.8	167.7	194.0	220.4	227.6
85°	47.9	98.2	119.8	129.4	134.2
87.5°	21.6	35.9	47.9	47.9	45.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)