

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: P388773

Luminaire Tested: **24CZ2-35VHE-UNV-L930-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: P388773
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35VHE-UNV-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2838.5 lumens
Efficiency: N/A
Efficacy: 124.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

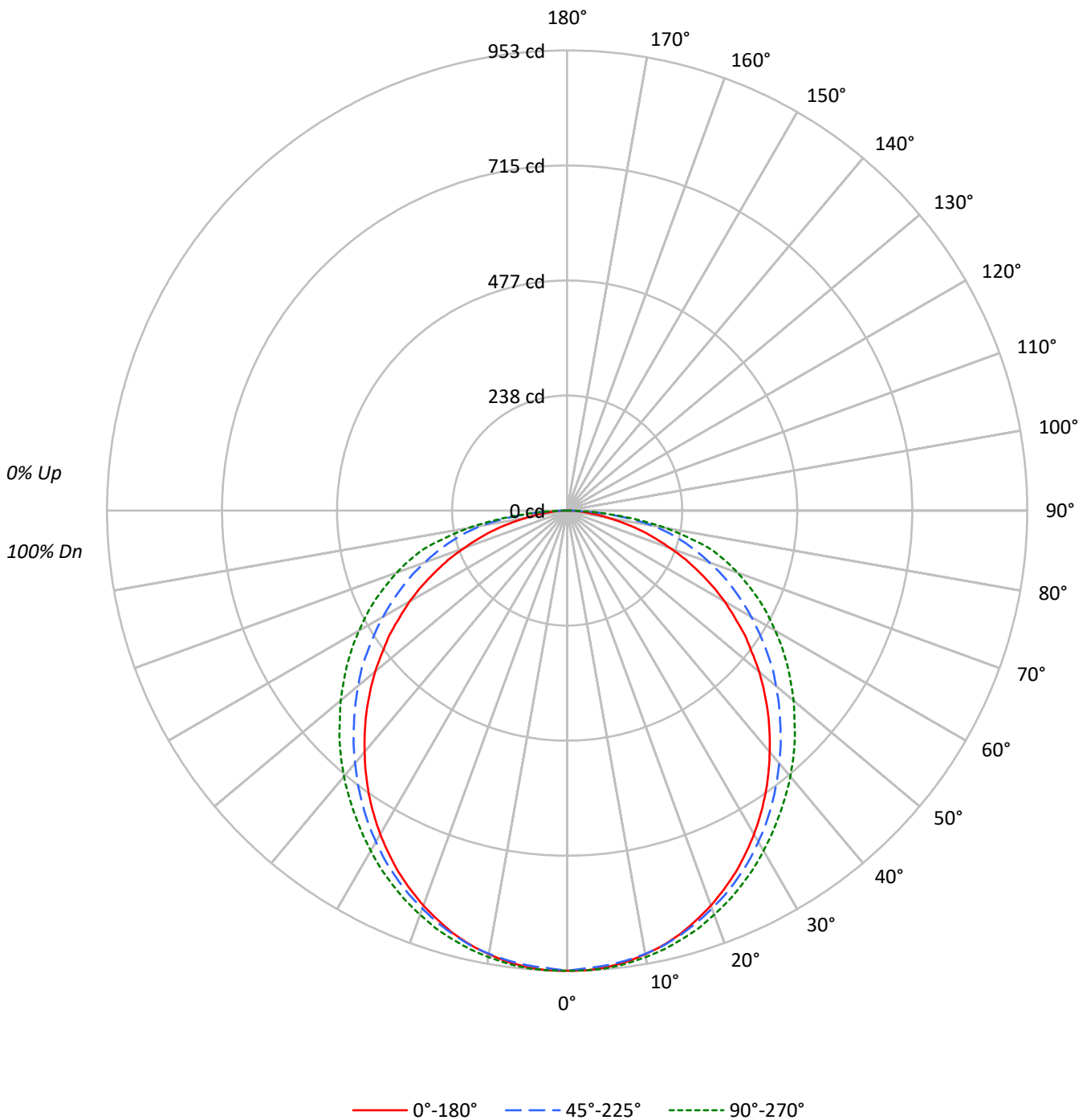
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1282	1282	1282
5°	1282	1277	1285
10°	1275	1274	1283
15°	1264	1267	1280
20°	1247	1256	1275
25°	1226	1245	1270
30°	1203	1230	1264
35°	1176	1215	1260
40°	1146	1200	1263
45°	1118	1188	1269
50°	1087	1182	1281
55°	1053	1180	1304
60°	1012	1185	1338
65°	959	1203	1396
70°	891	1234	1476
75°	813	1295	1601
80°	668	1395	1600
85°	513	1288	1374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.1	3.2
10°-20°	257.3	9.1
20°-30°	387.2	13.6
30°-40°	464.1	16.3
40°-50°	483.6	17.0
50°-60°	449.9	15.9
60°-70°	370.6	13.1
70°-80°	252.4	8.9
80°-90°	83.3	2.9
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°	734.7	25.9
0°-40°	1198.7	42.2
0°-60°	2132.2	75.1
0°-90°	2838.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2838.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	953	953	953	953	953	
5°	949	949	945	950	951	90
15°	908	908	909	918	919	256
25°	826	830	838	853	855	380
35°	716	725	740	760	767	448
45°	587	600	624	656	667	453
55°	449	464	503	543	556	400
65°	301	327	378	422	439	299
75°	156	191	249	294	308	165
85°	33	64	83	89	89	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	953.0	953.0	953.0	953.0	953.0
2.5°	953.0	953.0	948.3	953.0	953.0
5°	949.2	949.2	945.4	950.2	951.1
7.5°	942.6	943.5	939.8	945.4	946.4
10°	933.1	934.1	932.2	937.9	938.8
12.5°	921.8	922.7	922.7	929.3	930.3
15°	907.5	908.5	909.4	918.0	918.9
17.5°	889.5	892.4	894.3	904.7	906.6
20°	870.6	873.4	877.2	888.6	890.5
22.5°	848.8	852.6	859.2	871.5	874.4
25°	826.1	829.9	838.4	852.6	855.4
27.5°	800.5	806.2	816.6	831.8	835.5
30°	774.0	779.7	792.0	808.1	813.8
32.5°	745.6	753.1	767.3	785.3	791.0
35°	716.2	724.7	739.9	759.8	767.3
37.5°	684.9	694.4	712.4	734.2	743.7
40°	652.7	664.1	683.0	708.6	719.0
42.5°	620.5	630.9	654.6	682.1	693.4
45°	587.3	599.7	624.3	655.6	666.9
47.5°	553.2	565.6	594.9	628.1	638.5
50°	519.1	531.5	564.6	599.7	612.0
52.5°	482.2	498.3	536.2	571.2	583.6
55°	449.0	464.2	503.0	542.8	556.1
57.5°	411.1	429.1	471.8	513.5	527.7
60°	376.1	395.0	440.5	483.1	497.3
62.5°	340.1	360.9	409.2	452.8	468.9
65°	301.3	326.8	378.0	422.5	438.6
67.5°	266.2	292.7	346.7	392.2	406.4
70°	226.4	258.6	313.6	359.0	375.1
72.5°	192.3	224.5	282.3	326.8	342.9
75°	156.3	191.4	249.1	293.7	307.9
77.5°	120.3	159.2	216.9	251.0	255.8
80°	86.2	126.9	180.0	199.9	206.5
82.5°	60.6	97.6	132.6	145.9	149.7
85°	33.2	64.4	83.4	89.0	89.0
87.5°	14.2	27.5	33.2	34.1	35.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)