

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: P388585

Luminaire Tested: **24CZ2-35VHE-SQR-UNV-L930-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: P388585
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35VHE-SQR-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2759.3 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

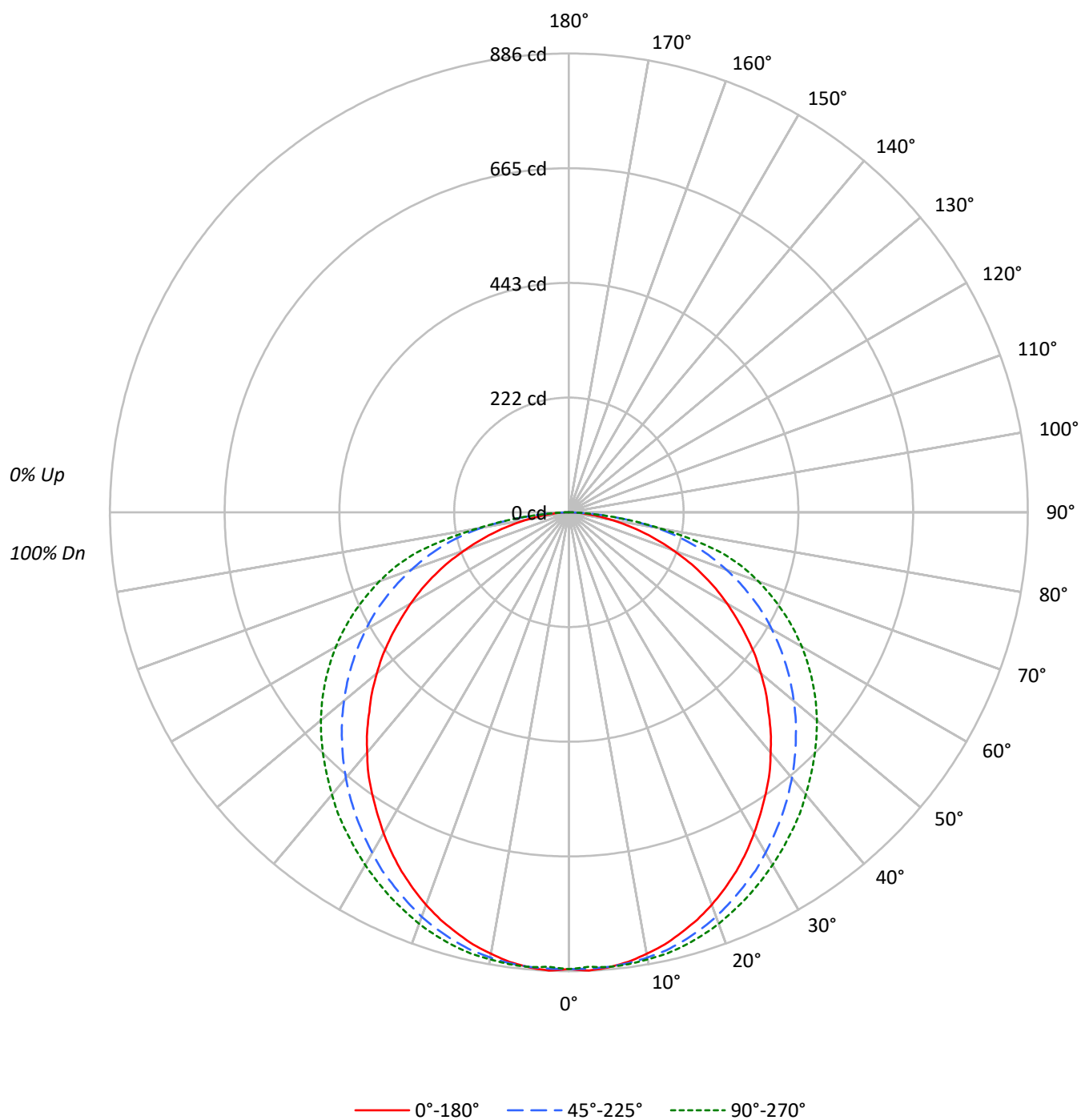
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	98	94	105	100	96	92		96	93	89		92	89	87		89	86	84
2	98	89	81	75	95	87	80	74		83	78	73		80	75	71		77	73	69
3	89	77	69	62	86	76	68	61		73	66	60		70	64	59		67	62	58
4	81	68	59	52	78	67	58	52		64	57	51		62	55	50		60	54	49
5	74	61	51	44	72	60	51	44		57	50	44		55	49	43		54	48	43
6	68	55	45	39	66	54	45	38		52	44	38		50	43	38		48	42	37
7	63	49	40	34	62	49	40	34		47	39	34		45	39	33		44	38	33
8	59	45	36	30	57	44	36	30		43	35	30		42	35	30		40	34	30
9	55	41	33	27	54	41	33	27		39	32	27		38	32	27		37	31	27
10	52	38	30	25	50	37	30	24		36	29	24		36	29	24		35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1187	1187	1187
5°	1191	1190	1190
10°	1183	1193	1198
15°	1170	1193	1206
20°	1155	1190	1211
25°	1135	1184	1215
30°	1111	1179	1222
35°	1088	1176	1233
40°	1064	1176	1250
45°	1037	1179	1274
50°	1013	1186	1308
55°	983	1199	1349
60°	949	1218	1398
65°	908	1242	1456
70°	842	1273	1531
75°	763	1317	1601
80°	642	1320	1377
85°	492	999	999



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.7	3.0
10°-20°	240.9	8.7
20°-30°	365.9	13.3
30°-40°	445.0	16.1
40°-50°	473.8	17.2
50°-60°	451.3	16.4
60°-70°	377.4	13.7
70°-80°	251.6	9.1
80°-90°	69.6	2.5
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°	690.5	25.0
0°-40°	1135.5	41.2
0°-60°	2060.6	74.7
0°-90°	2759.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2759.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	882	876	881	881	881	84
15°	840	842	856	863	866	237
25°	764	774	797	811	818	352
35°	662	682	716	740	751	415
45°	545	574	620	654	670	421
55°	419	456	511	556	575	375
65°	285	327	390	438	457	282
75°	147	193	253	296	308	155
85°	32	59	65	64	65	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	882.0	882.0	882.0	882.0	882.0
2.5°	885.7	879.3	882.0	882.0	878.4
5°	882.0	876.5	881.1	881.1	881.1
7.5°	875.6	871.1	878.4	880.2	880.2
10°	865.6	863.8	872.9	875.6	876.5
12.5°	854.7	853.8	866.5	870.2	872.9
15°	840.1	841.9	856.5	862.9	865.6
17.5°	824.6	828.2	844.6	853.8	856.5
20°	806.4	811.8	831.0	840.1	845.6
22.5°	786.3	794.5	814.6	825.5	831.9
25°	764.5	774.5	797.3	810.9	818.2
27.5°	740.8	753.5	780.0	795.4	802.7
30°	715.3	729.8	759.0	777.2	786.3
32.5°	688.8	706.2	738.0	758.1	769.0
35°	662.4	681.6	716.2	739.9	750.8
37.5°	636.0	655.1	693.4	718.9	732.6
40°	605.9	628.7	669.7	698.0	711.6
42.5°	576.8	601.4	645.1	676.1	690.7
45°	544.9	574.0	619.6	654.2	669.7
47.5°	515.7	544.9	594.1	630.5	647.8
50°	483.8	514.8	566.7	606.8	625.1
52.5°	452.8	484.7	539.4	582.2	600.5
55°	419.1	455.6	511.2	555.8	574.9
57.5°	385.4	424.6	482.0	528.5	547.6
60°	352.6	392.7	452.8	499.3	519.4
62.5°	319.8	359.9	422.8	470.2	489.3
65°	285.2	327.1	390.0	438.3	457.4
67.5°	250.6	294.3	357.2	405.5	423.7
70°	214.1	260.6	323.5	370.8	389.1
72.5°	180.4	226.9	288.8	335.3	352.6
75°	146.7	193.2	253.3	296.1	308.0
77.5°	113.9	160.4	214.1	242.4	245.1
80°	82.9	126.7	170.4	178.6	177.7
82.5°	55.6	94.8	117.5	118.5	121.2
85°	31.9	59.2	64.7	63.8	64.7
87.5°	12.8	21.0	18.2	13.7	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)