

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: P230443

Luminaire Tested: **24CZ-LD5-45SE-SQP-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230443
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-45SE-SQP-UNV-L950-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (84) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3031.9 lumens
Efficiency: N/A
Efficacy: 76.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

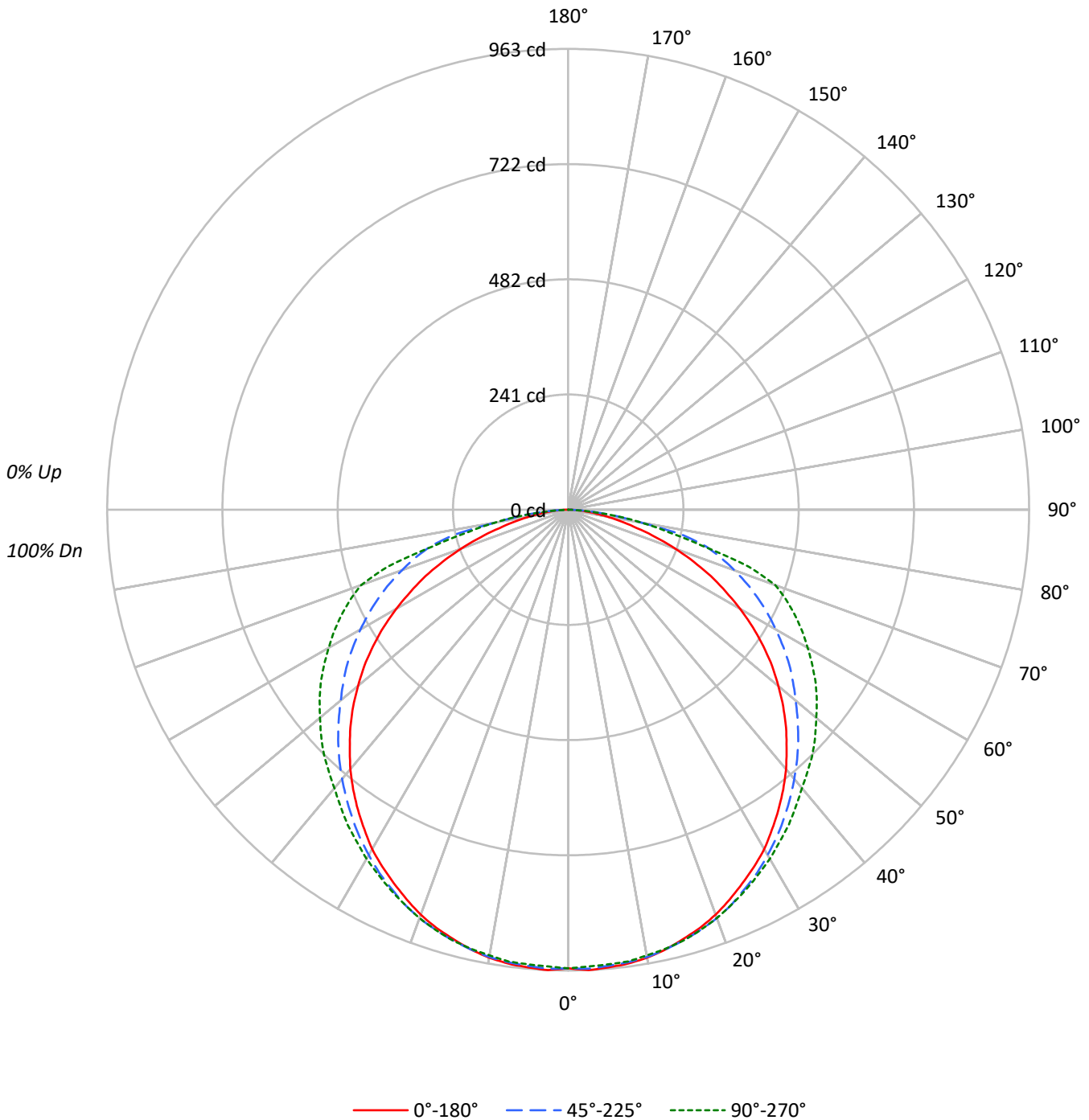
Input Watts (W): 39.91
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	97	93	96	93	90		92	90	87		89	87	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	60		70	64	59		67	63	58	56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		60	54	50	47
5	74	61	51	45	72	60	51	44	57	50	44		55	49	43		54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34		45	39	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		40	34	29	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24		35	29	24		35	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1290	1290	1290
5°	1297	1292	1288
10°	1299	1297	1292
15°	1294	1298	1298
20°	1289	1301	1301
25°	1279	1297	1302
30°	1273	1294	1309
35°	1258	1291	1320
40°	1243	1290	1334
45°	1225	1293	1374
50°	1200	1298	1416
55°	1168	1323	1480
60°	1117	1348	1555
65°	1047	1391	1665
70°	936	1454	1811
75°	774	1555	1498
80°	631	1201	1213
85°	508	798	749



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.0	3.0
10°-20°	262.7	8.7
20°-30°	401.4	13.2
30°-40°	491.0	16.2
40°-50°	525.4	17.3
50°-60°	503.1	16.6
60°-70°	425.6	14.0
70°-80°	269.8	8.9
80°-90°	62.1	2.0
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°	755.1	24.9
0°-40°	1246.1	41.1
0°-60°	2274.6	75.0
0°-90°	3031.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3031.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	958	958	958	958	958	
5°	960	955	957	955	954	91
15°	929	927	932	932	932	262
25°	861	861	874	877	877	397
35°	766	770	786	797	803	479
45°	644	655	680	708	722	496
55°	498	514	564	611	631	444
65°	329	360	437	496	523	324
75°	149	210	299	298	288	162
85°	33	50	52	47	48	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	958.4	958.4	958.4	958.4	958.4
2.5°	963.1	958.4	960.0	958.4	955.3
5°	960.0	955.3	956.9	955.3	953.7
7.5°	956.9	952.2	953.7	952.2	952.2
10°	950.6	945.9	949.1	947.5	945.9
12.5°	941.2	938.1	941.2	939.7	939.7
15°	928.7	927.1	931.8	931.8	931.8
17.5°	916.2	914.6	920.9	920.9	920.9
20°	900.5	898.9	908.3	908.3	908.3
22.5°	881.7	880.1	892.7	892.7	892.7
25°	861.3	861.3	873.9	877.0	877.0
27.5°	841.0	841.0	855.1	859.8	859.8
30°	819.1	819.1	833.2	839.4	842.6
32.5°	792.4	795.6	811.2	819.1	822.2
35°	765.8	770.5	786.2	797.1	803.4
37.5°	737.6	742.3	761.1	773.6	781.5
40°	707.9	714.1	734.5	750.2	759.6
42.5°	675.0	684.4	707.9	728.2	740.8
45°	643.7	654.6	679.7	707.9	722.0
47.5°	609.2	621.7	649.9	685.9	700.0
50°	573.2	585.7	620.2	660.9	676.6
52.5°	537.2	551.3	592.0	635.8	654.6
55°	498.0	513.7	563.8	610.8	631.1
57.5°	457.3	476.1	532.5	582.6	604.5
60°	415.0	438.5	501.1	554.4	577.9
62.5°	371.2	399.4	469.8	526.2	551.3
65°	328.9	360.2	436.9	496.5	523.1
67.5°	283.5	322.6	404.1	468.3	493.3
70°	238.0	283.5	369.6	435.4	460.4
72.5°	192.6	247.4	335.1	394.7	394.7
75°	148.8	209.9	299.1	297.6	288.2
77.5°	112.8	175.4	245.9	209.9	211.4
80°	81.4	140.9	155.0	155.0	156.6
82.5°	54.8	108.1	100.2	98.7	101.8
85°	32.9	50.1	51.7	47.0	48.5
87.5°	15.7	17.2	14.1	9.4	9.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)