

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: P230446

Luminaire Tested: **24CZ-LD5-50SE-SQP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230446
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-LD5-50SE-SQP-UNV-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3099.6 lumens
Efficiency: N/A
Efficacy: 66.6 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

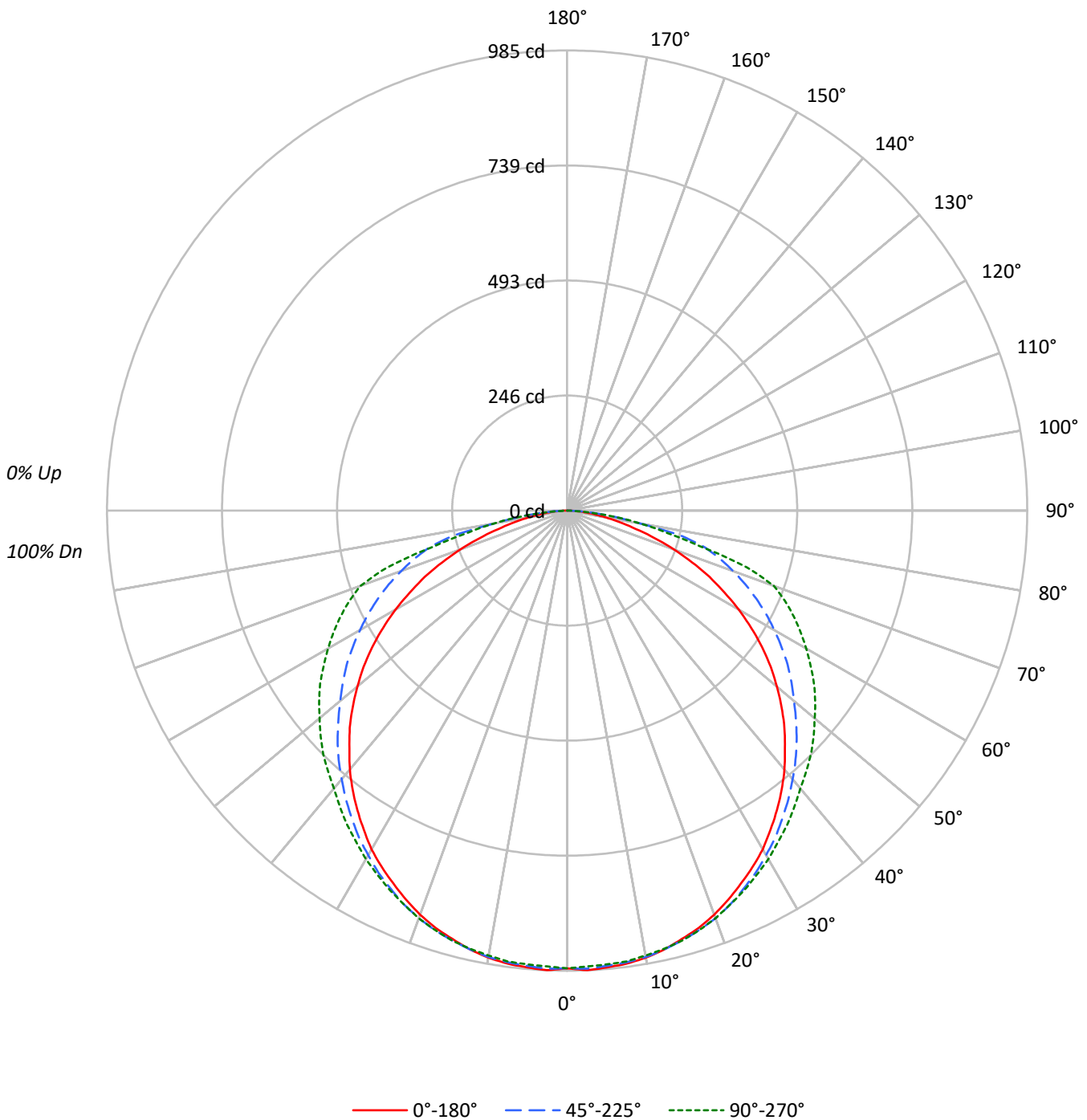
Input Watts (W): 46.56
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1318	1318	1318
5°	1326	1321	1317
10°	1328	1326	1321
15°	1322	1327	1327
20°	1318	1330	1330
25°	1307	1326	1331
30°	1301	1323	1338
35°	1286	1320	1349
40°	1271	1319	1364
45°	1252	1322	1404
50°	1227	1327	1448
55°	1194	1352	1514
60°	1142	1379	1590
65°	1070	1422	1703
70°	958	1486	1852
75°	791	1590	1531
80°	645	1228	1241
85°	519	815	766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.1	3.0
10°-20°	268.5	8.7
20°-30°	410.4	13.2
30°-40°	501.9	16.2
40°-50°	537.1	17.3
50°-60°	514.3	16.6
60°-70°	435.1	14.0
70°-80°	275.8	8.9
80°-90°	63.4	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°	772.0	24.9
0°-40°	1273.9	41.1
0°-60°	2325.3	75.0
0°-90°	3099.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3099.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	980	980	980	980	980	
5°	981	977	978	977	975	93
15°	949	948	953	953	953	268
25°	881	881	893	897	897	406
35°	783	788	804	815	821	490
45°	658	669	695	724	738	507
55°	509	525	576	624	645	454
65°	336	368	447	508	535	331
75°	152	214	306	304	295	165
85°	34	51	53	48	50	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	979.8	979.8	979.8	979.8	979.8
2.5°	984.7	979.8	981.4	979.8	976.6
5°	981.4	976.6	978.2	976.6	975.0
7.5°	978.2	973.4	975.0	973.4	973.4
10°	971.8	967.0	970.2	968.6	967.0
12.5°	962.2	959.0	962.2	960.6	960.6
15°	949.4	947.8	952.6	952.6	952.6
17.5°	936.6	935.0	941.4	941.4	941.4
20°	920.6	919.0	928.6	928.6	928.6
22.5°	901.4	899.8	912.6	912.6	912.6
25°	880.6	880.6	893.4	896.6	896.6
27.5°	859.8	859.8	874.2	879.0	879.0
30°	837.4	837.4	851.8	858.2	861.4
32.5°	810.1	813.3	829.3	837.4	840.6
35°	782.9	787.7	803.7	814.9	821.3
37.5°	754.1	758.9	778.1	790.9	798.9
40°	723.7	730.1	750.9	766.9	776.5
42.5°	690.1	699.7	723.7	744.5	757.3
45°	658.0	669.2	694.9	723.7	738.1
47.5°	622.8	635.6	664.4	701.3	715.7
50°	586.0	598.8	634.0	675.6	691.7
52.5°	549.2	563.6	605.2	650.0	669.2
55°	509.1	525.1	576.4	624.4	645.2
57.5°	467.5	486.7	544.4	595.6	618.0
60°	424.3	448.3	512.3	566.8	590.8
62.5°	379.5	408.3	480.3	538.0	563.6
65°	336.2	368.2	446.7	507.5	534.8
67.5°	289.8	329.8	413.1	478.7	504.3
70°	243.4	289.8	377.8	445.1	470.7
72.5°	196.9	253.0	342.6	403.5	403.5
75°	152.1	214.5	305.8	304.2	294.6
77.5°	115.3	179.3	251.4	214.5	216.1
80°	83.3	144.1	158.5	158.5	160.1
82.5°	56.0	110.5	102.5	100.9	104.1
85°	33.6	51.2	52.8	48.0	49.6
87.5°	16.0	17.6	14.4	9.6	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)