

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: P230438

Luminaire Tested: **24CZ-LD5-40SE-SQP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230438
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-LD5-40SE-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: 2449.6 lumens
Efficiency: N/A
Efficacy: 75.3 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

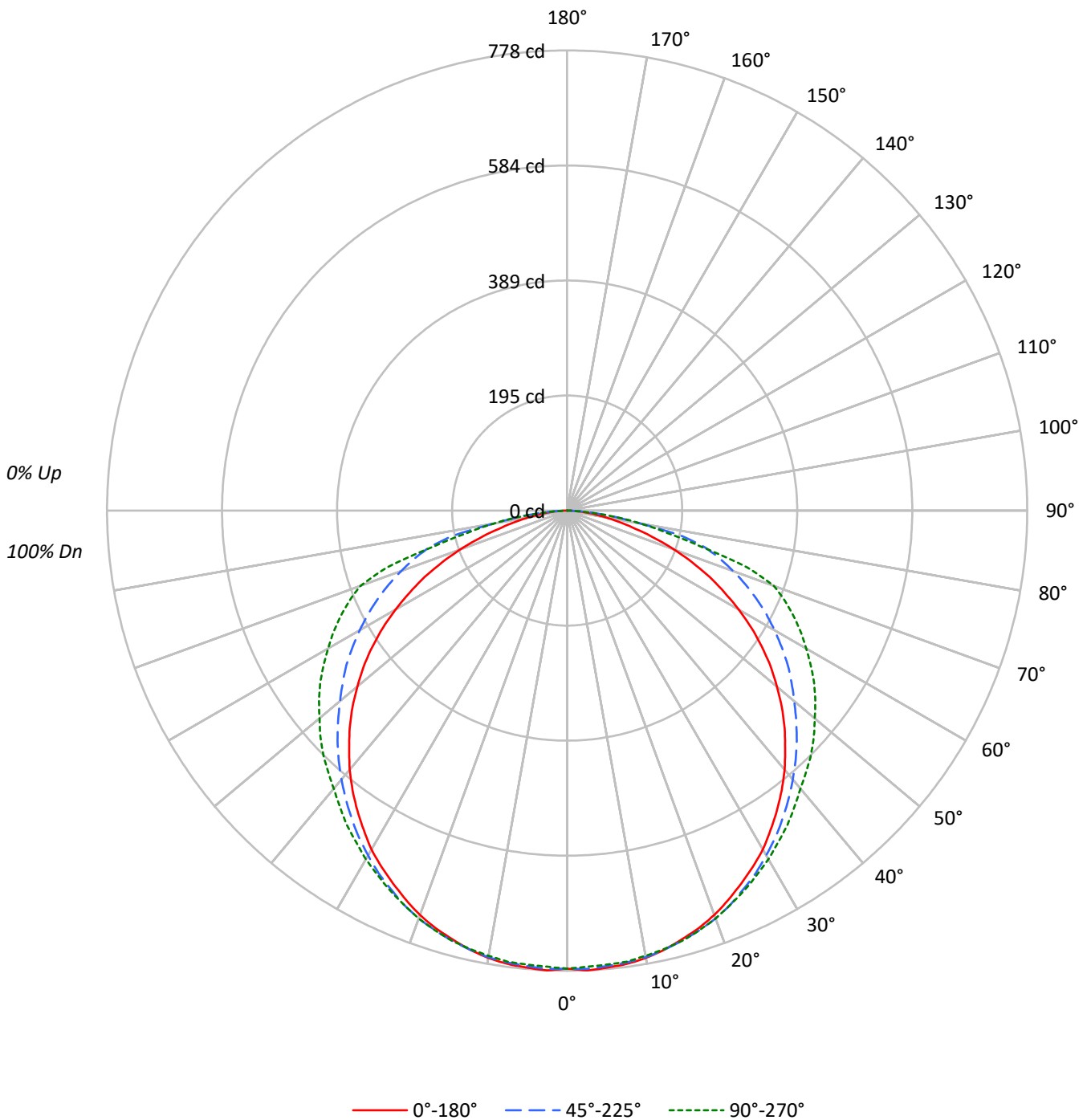
Input Watts (W): 32.55
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1042	1042	1042
5°	1048	1044	1041
10°	1049	1048	1044
15°	1045	1049	1049
20°	1042	1051	1051
25°	1033	1048	1052
30°	1028	1046	1058
35°	1016	1043	1066
40°	1004	1042	1078
45°	989	1045	1110
50°	969	1049	1144
55°	944	1069	1196
60°	902	1090	1256
65°	846	1124	1345
70°	756	1175	1463
75°	625	1256	1210
80°	510	971	980
85°	411	645	605



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.5	3.0
10°-20°	212.2	8.7
20°-30°	324.3	13.2
30°-40°	396.7	16.2
40°-50°	424.4	17.3
50°-60°	406.4	16.6
60°-70°	343.8	14.0
70°-80°	217.9	8.9
80°-90°	50.1	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°	610.1	24.9
0°-40°	1006.8	41.1
0°-60°	1837.7	75.0
0°-90°	2449.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2449.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	774	774	774	774	774	
5°	776	772	773	772	771	74
15°	750	749	753	753	753	212
25°	696	696	706	709	709	321
35°	619	622	635	644	649	387
45°	520	529	549	572	583	401
55°	402	415	456	494	510	359
65°	266	291	353	401	423	262
75°	120	170	242	240	233	131
85°	27	40	42	38	39	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	774.4	774.4	774.4	774.4	774.4
2.5°	778.2	774.4	775.6	774.4	771.8
5°	775.6	771.8	773.1	771.8	770.6
7.5°	773.1	769.3	770.6	769.3	769.3
10°	768.0	764.2	766.8	765.5	764.2
12.5°	760.4	757.9	760.4	759.2	759.2
15°	750.3	749.1	752.8	752.8	752.8
17.5°	740.2	738.9	744.0	744.0	744.0
20°	727.5	726.3	733.9	733.9	733.9
22.5°	712.4	711.1	721.2	721.2	721.2
25°	695.9	695.9	706.0	708.6	708.6
27.5°	679.5	679.5	690.8	694.6	694.6
30°	661.7	661.7	673.1	678.2	680.7
32.5°	640.2	642.8	655.4	661.7	664.3
35°	618.7	622.5	635.2	644.0	649.1
37.5°	596.0	599.7	614.9	625.1	631.4
40°	571.9	577.0	593.4	606.1	613.7
42.5°	545.3	552.9	571.9	588.4	598.5
45°	520.0	528.9	549.1	571.9	583.3
47.5°	492.2	502.3	525.1	554.2	565.6
50°	463.1	473.2	501.1	534.0	546.6
52.5°	434.0	445.4	478.3	513.7	528.9
55°	402.4	415.0	455.5	493.5	509.9
57.5°	369.5	384.6	430.2	470.7	488.4
60°	335.3	354.3	404.9	447.9	466.9
62.5°	299.9	322.6	379.6	425.1	445.4
65°	265.7	291.0	353.0	401.1	422.6
67.5°	229.0	260.6	326.4	378.3	398.6
70°	192.3	229.0	298.6	351.8	372.0
72.5°	155.6	199.9	270.8	318.9	318.9
75°	120.2	169.5	241.7	240.4	232.8
77.5°	91.1	141.7	198.7	169.5	170.8
80°	65.8	113.9	125.3	125.3	126.5
82.5°	44.3	87.3	81.0	79.7	82.2
85°	26.6	40.5	41.8	38.0	39.2
87.5°	12.7	13.9	11.4	7.6	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)