

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: P229998

Luminaire Tested: **24CZ-LD5-30SE-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229998
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-30SE-UNV-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2697.0 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

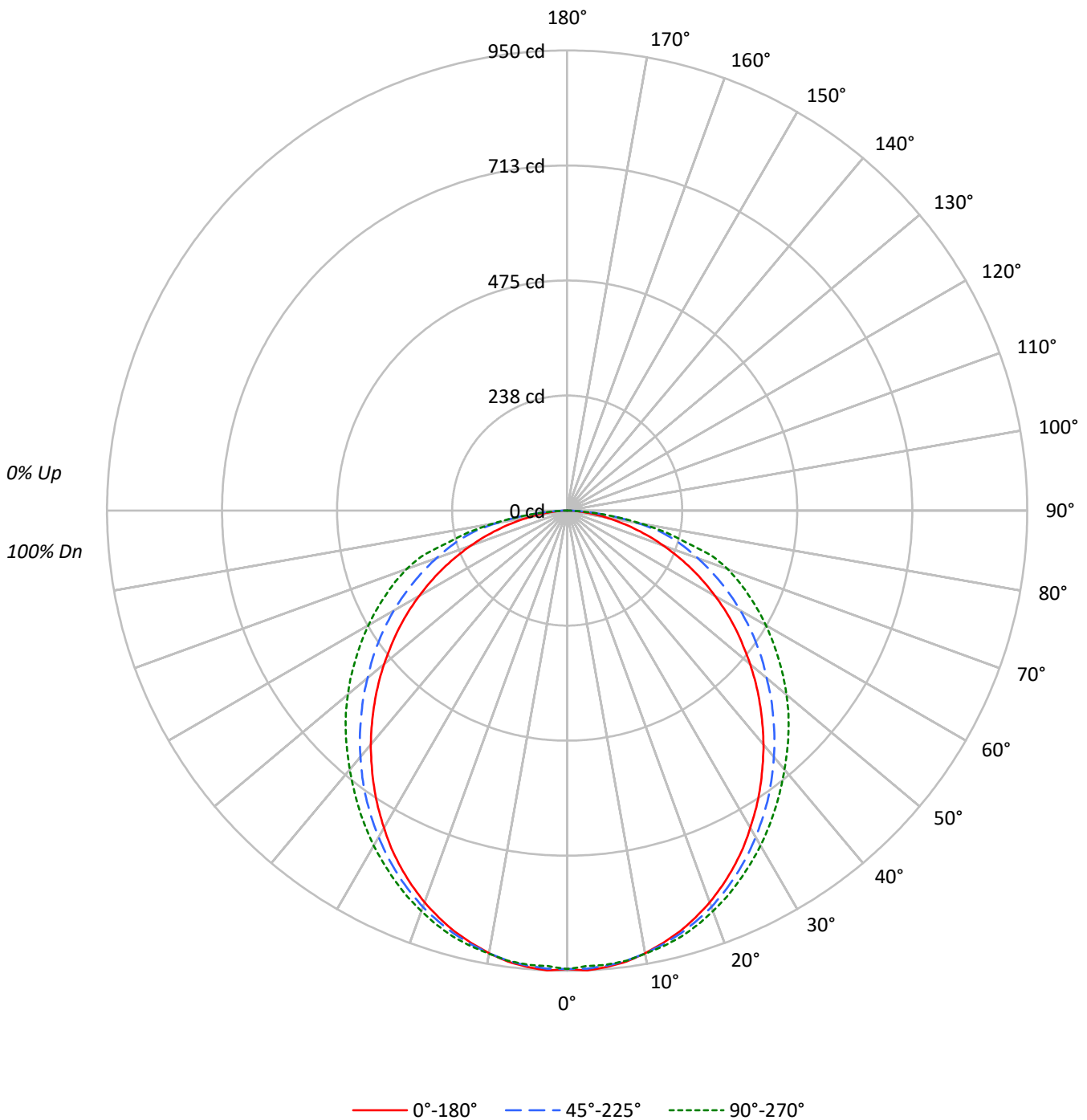
Input Watts (W): 23.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1274	1274	1274
5°	1277	1273	1271
10°	1268	1268	1269
15°	1253	1259	1268
20°	1232	1247	1260
25°	1206	1230	1250
30°	1175	1209	1241
35°	1142	1189	1232
40°	1108	1166	1226
45°	1070	1144	1230
50°	1032	1125	1237
55°	994	1118	1250
60°	949	1111	1275
65°	900	1111	1317
70°	832	1130	1388
75°	744	1181	1320
80°	622	1130	1210
85°	471	869	827



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.4	3.3
10°-20°	254.6	9.4
20°-30°	380.6	14.1
30°-40°	451.5	16.7
40°-50°	464.7	17.2
50°-60°	426.3	15.8
60°-70°	344.7	12.8
70°-80°	223.7	8.3
80°-90°	61.7	2.3
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°	724.6	26.9
0°-40°	1176.0	43.6
0°-60°	2067.0	76.6
0°-90°	2697.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2697.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	946	946	946	946	946	
5°	946	939	943	942	941	90
15°	899	896	904	908	910	253
25°	813	814	828	836	842	374
35°	695	701	724	740	750	435
45°	562	572	601	630	646	434
55°	424	437	476	515	533	379
65°	283	299	349	395	414	279
75°	143	170	227	254	254	152
85°	30	52	56	54	54	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	946.5	946.5	946.5	946.5	946.5
2.5°	950.2	942.8	946.5	945.6	941.0
5°	945.6	939.1	942.8	941.9	941.0
7.5°	939.1	932.7	937.3	936.3	937.3
10°	928.0	922.5	928.0	929.0	929.0
12.5°	914.2	909.6	917.0	918.8	920.7
15°	899.4	895.7	904.0	907.7	910.5
17.5°	880.9	878.2	888.3	892.9	896.6
20°	860.6	859.7	870.8	875.4	880.0
22.5°	837.5	837.5	850.5	856.0	862.5
25°	812.6	813.5	828.3	835.7	842.2
27.5°	785.8	786.8	804.3	813.5	820.9
30°	756.3	760.0	778.4	790.4	798.8
32.5°	726.7	731.3	751.7	765.5	774.8
35°	695.3	700.9	724.0	739.7	749.8
37.5°	663.0	669.5	694.4	712.0	724.0
40°	630.7	638.1	663.9	684.3	698.1
42.5°	596.5	604.8	633.5	657.5	672.3
45°	562.4	571.6	601.1	629.8	646.4
47.5°	528.2	539.3	570.7	602.1	619.6
50°	493.1	504.2	537.4	573.4	591.0
52.5°	458.0	470.9	507.9	544.8	562.4
55°	423.9	436.8	476.5	515.3	532.8
57.5°	388.8	401.7	445.1	485.7	503.3
60°	352.7	367.5	412.8	454.3	473.7
62.5°	317.7	333.4	381.4	425.7	444.2
65°	282.6	299.2	349.1	395.2	413.7
67.5°	246.6	265.9	317.7	364.8	384.1
70°	211.5	232.7	287.2	334.3	352.7
72.5°	177.3	200.4	256.7	304.7	315.8
75°	143.1	169.9	227.2	253.9	253.9
77.5°	110.8	140.4	193.9	204.1	209.6
80°	80.3	112.7	145.9	157.9	156.1
82.5°	53.6	85.9	104.3	104.3	101.6
85°	30.5	51.7	56.3	54.5	53.6
87.5°	12.9	19.4	17.5	13.9	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)