

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: P230390

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230390
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-LD5-30-SQP-UNV-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1834.8 lumens
Efficiency: N/A
Efficacy: 84.9 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

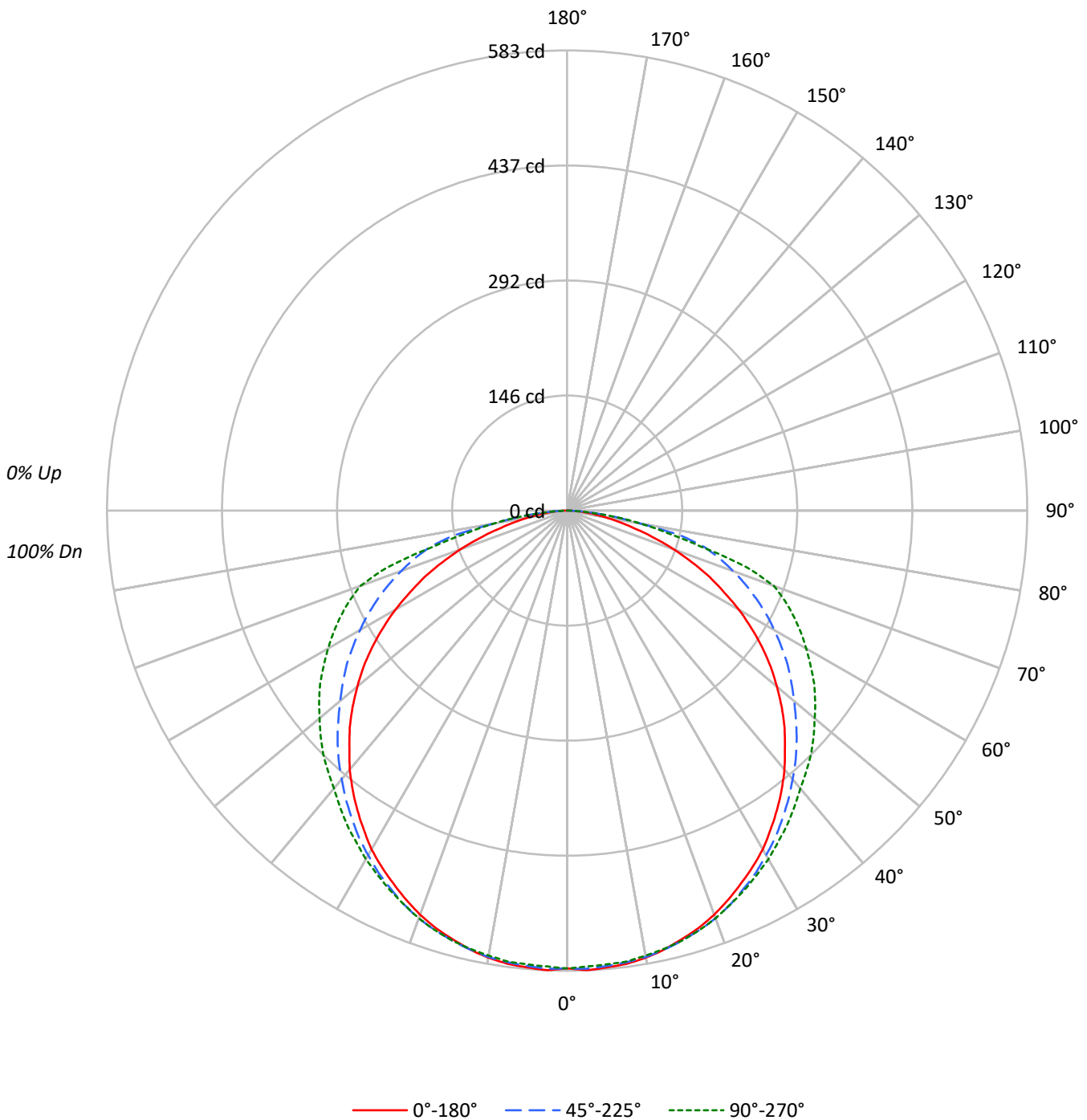
Input Watts (W): 21.62
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	780	780	780
5°	785	782	780
10°	786	785	782
15°	783	785	785
20°	780	787	787
25°	774	785	788
30°	770	783	792
35°	761	782	799
40°	752	781	807
45°	741	783	831
50°	726	786	857
55°	707	800	896
60°	676	816	941
65°	634	842	1008
70°	567	880	1096
75°	468	941	907
80°	382	727	735
85°	307	483	454



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.1	3.0
10°-20°	159.0	8.7
20°-30°	242.9	13.2
30°-40°	297.1	16.2
40°-50°	317.9	17.3
50°-60°	304.4	16.6
60°-70°	257.5	14.0
70°-80°	163.2	8.9
80°-90°	37.6	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°	457.0	24.9
0°-40°	754.1	41.1
0°-60°	1376.5	75.0
0°-90°	1834.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1834.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	580	580	580	580	580	
5°	581	578	579	578	577	55
15°	562	561	564	564	564	159
25°	521	521	529	531	531	240
35°	463	466	476	482	486	290
45°	390	396	411	428	437	300
55°	301	311	341	370	382	269
65°	199	218	264	300	316	196
75°	90	127	181	180	174	98
85°	20	30	31	28	29	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	580.0	580.0	580.0	580.0	580.0
2.5°	582.8	580.0	581.0	580.0	578.1
5°	581.0	578.1	579.1	578.1	577.2
7.5°	579.1	576.2	577.2	576.2	576.2
10°	575.3	572.4	574.3	573.4	572.4
12.5°	569.6	567.7	569.6	568.6	568.6
15°	562.0	561.0	563.9	563.9	563.9
17.5°	554.4	553.5	557.3	557.3	557.3
20°	544.9	544.0	549.7	549.7	549.7
22.5°	533.6	532.6	540.2	540.2	540.2
25°	521.2	521.2	528.8	530.7	530.7
27.5°	508.9	508.9	517.5	520.3	520.3
30°	495.7	495.7	504.2	508.0	509.9
32.5°	479.5	481.4	490.9	495.7	497.6
35°	463.4	466.3	475.8	482.4	486.2
37.5°	446.4	449.2	460.6	468.2	472.9
40°	428.4	432.2	444.5	454.0	459.6
42.5°	408.5	414.2	428.4	440.7	448.3
45°	389.5	396.1	411.3	428.4	436.9
47.5°	368.7	376.2	393.3	415.1	423.6
50°	346.9	354.4	375.3	399.9	409.4
52.5°	325.1	333.6	358.2	384.8	396.1
55°	301.4	310.9	341.2	369.6	381.9
57.5°	276.7	288.1	322.2	352.6	365.8
60°	251.1	265.4	303.3	335.5	349.7
62.5°	224.6	241.7	284.3	318.4	333.6
65°	199.0	218.0	264.4	300.4	316.5
67.5°	171.5	195.2	244.5	283.4	298.5
70°	144.1	171.5	223.7	263.5	278.6
72.5°	116.6	149.7	202.8	238.8	238.8
75°	90.0	127.0	181.0	180.1	174.4
77.5°	68.2	106.1	148.8	127.0	127.9
80°	49.3	85.3	93.8	93.8	94.8
82.5°	33.2	65.4	60.7	59.7	61.6
85°	19.9	30.3	31.3	28.4	29.4
87.5°	9.5	10.4	8.5	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)