

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: P274794

Luminaire Tested: **24CZ2-40HE-RDP-UNV-L950-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P274794
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40HE-RDP-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
Light Source: (168) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2457.0 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

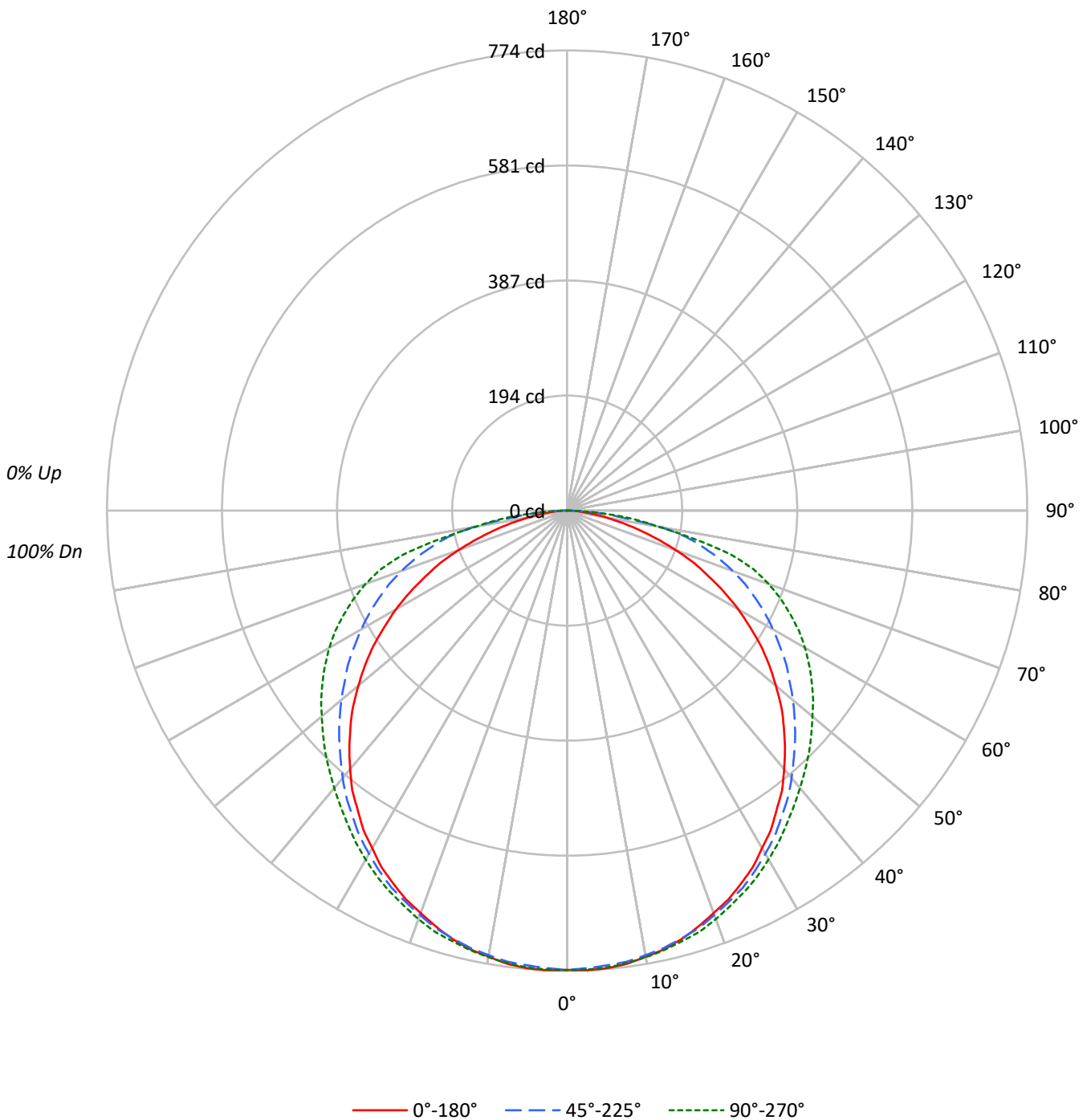
Input Watts (W): 30.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1040	1040	1040
5°	1044	1037	1042
10°	1041	1037	1042
15°	1039	1037	1044
20°	1031	1037	1047
25°	1028	1038	1049
30°	1019	1036	1053
35°	1009	1033	1057
40°	997	1032	1070
45°	981	1032	1094
50°	959	1038	1128
55°	935	1055	1178
60°	895	1076	1243
65°	838	1114	1319
70°	762	1165	1419
75°	646	1229	1483
80°	510	1237	1199
85°	377	940	1053



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	3.0
10°-20°	210.9	8.6
20°-30°	322.6	13.1
30°-40°	394.3	16.0
40°-50°	420.3	17.1
50°-60°	401.8	16.4
60°-70°	340.4	13.9
70°-80°	228.8	9.3
80°-90°	64.5	2.6
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°	606.8	24.7
0°-40°	1001.1	40.7
0°-60°	1823.3	74.2
0°-90°	2457.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2457.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	773	773	773	773	773	
5°	773	771	768	771	771	73
15°	746	746	745	751	750	210
25°	692	695	700	706	707	319
35°	614	619	629	641	644	385
45°	516	524	542	566	575	398
55°	398	413	450	485	502	355
65°	263	290	350	396	414	261
75°	124	169	236	277	285	133
85°	24	50	61	66	68	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	772.7	772.7	772.7	772.7	772.7
2.5°	773.9	773.9	770.2	772.7	772.7
5°	772.7	771.4	767.8	771.4	771.4
7.5°	769.0	767.8	765.3	769.0	767.8
10°	761.7	761.7	759.3	762.9	762.9
12.5°	755.6	754.4	753.2	758.0	756.8
15°	745.8	745.8	744.6	750.7	749.5
17.5°	733.7	734.9	736.1	741.0	742.2
20°	720.3	722.7	723.9	731.2	731.2
22.5°	708.1	709.3	711.7	719.0	719.0
25°	692.2	694.7	699.5	705.6	706.8
27.5°	676.4	677.6	683.7	692.2	693.4
30°	655.7	659.3	666.6	676.4	677.6
32.5°	637.4	641.0	649.6	659.3	661.8
35°	614.2	619.1	628.8	641.0	643.5
37.5°	593.5	597.2	609.4	622.8	626.4
40°	567.9	575.2	587.4	603.3	609.4
42.5°	542.3	549.6	564.3	585.0	592.3
45°	515.5	524.0	542.3	565.5	575.2
47.5°	488.7	498.4	519.2	546.0	556.9
50°	458.2	470.4	496.0	526.5	538.7
52.5°	429.0	443.6	471.6	505.8	521.6
55°	398.5	413.1	449.7	485.0	502.1
57.5°	364.4	383.9	424.1	464.3	482.6
60°	332.7	351.0	399.7	443.6	461.9
62.5°	298.6	323.0	375.4	421.7	440.0
65°	263.2	290.1	349.8	396.1	414.4
67.5°	231.6	260.8	324.2	370.5	388.8
70°	193.8	230.3	296.1	342.5	360.7
72.5°	158.4	198.6	266.9	312.0	329.0
75°	124.3	169.4	236.4	276.6	285.2
77.5°	92.6	140.2	204.7	221.8	215.7
80°	65.8	112.1	159.6	151.1	154.8
82.5°	42.7	85.3	98.7	112.1	115.8
85°	24.4	50.0	60.9	65.8	68.2
87.5°	11.0	18.3	24.4	24.4	23.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)