

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: P274778

Luminaire Tested: **24CZ2-30HE-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: P274778  
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: 24CZ2-30HE-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: 1838.0 lumens  
Efficiency: N/A  
Efficacy: 82.1 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

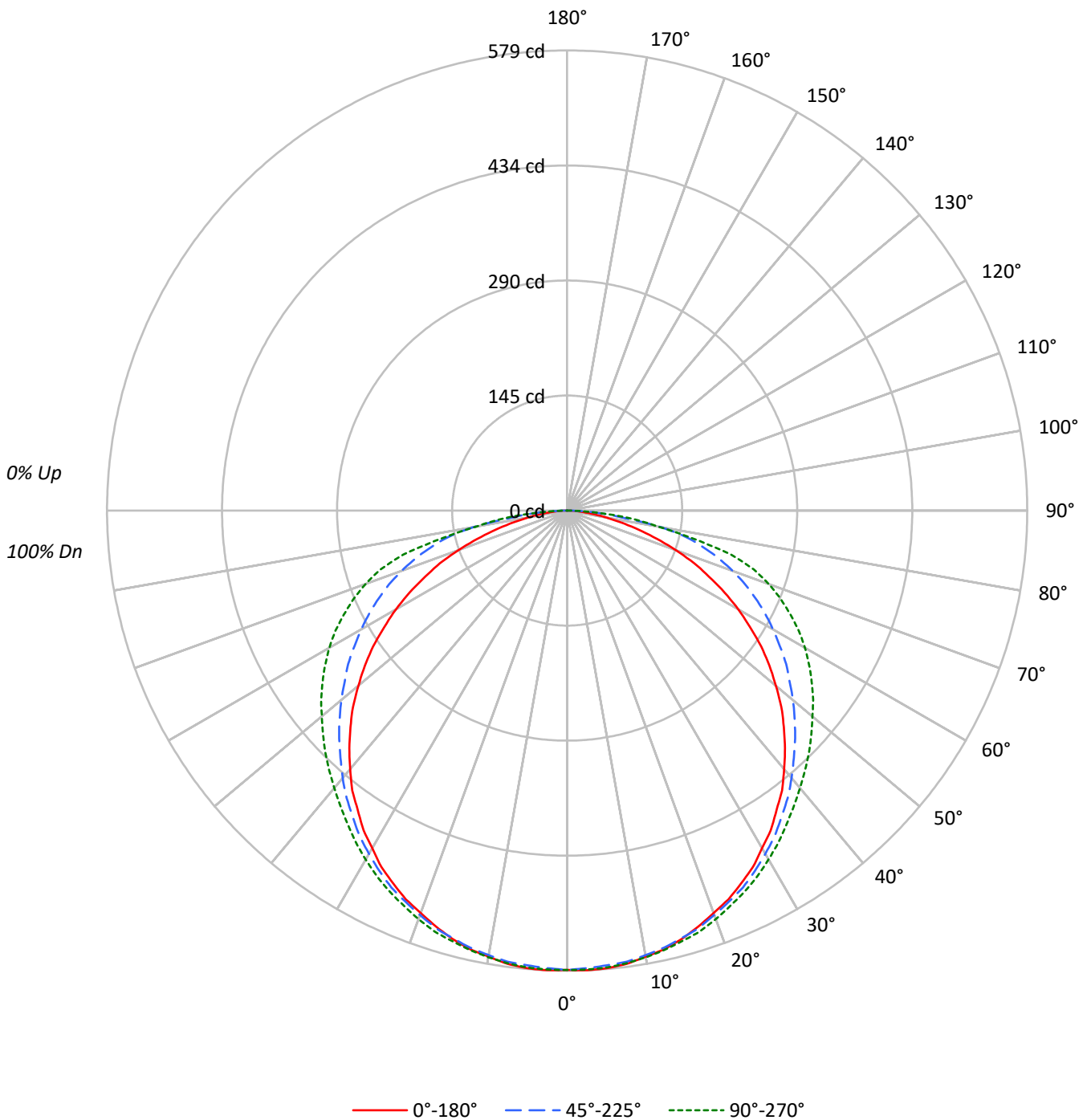
Input Watts (W): 22.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	68	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°	778	778	778
5°	781	776	779
10°	778	776	780
15°	777	776	781
20°	771	775	783
25°	769	777	785
30°	762	775	788
35°	755	773	791
40°	746	772	801
45°	734	772	819
50°	718	777	844
55°	699	789	881
60°	670	805	930
65°	627	833	987
70°	570	871	1062
75°	483	920	1109
80°	381	925	897
85°	281	704	789



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.8	3.0
10°-20°	157.8	8.6
20°-30°	241.3	13.1
30°-40°	295.0	16.0
40°-50°	314.4	17.1
50°-60°	300.6	16.4
60°-70°	254.6	13.9
70°-80°	171.1	9.3
80°-90°	48.3	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°	453.9	24.7
0°-40°	748.9	40.7
0°-60°	1363.9	74.2
0°-90°	1838.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1838.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	578	578	578	578	578	
5°	578	577	574	577	577	55
15°	558	558	557	562	561	157
25°	518	520	523	528	529	239
35°	460	463	470	480	481	288
45°	386	392	406	423	430	297
55°	298	309	336	363	376	266
65°	197	217	262	296	310	196
75°	93	127	177	207	213	100
85°	18	37	46	49	51	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	578.0	578.0	578.0	578.0	578.0
2.5°	578.9	578.9	576.2	578.0	578.0
5°	578.0	577.1	574.4	577.1	577.1
7.5°	575.3	574.4	572.5	575.3	574.4
10°	569.8	569.8	568.0	570.7	570.7
12.5°	565.2	564.3	563.4	567.1	566.1
15°	557.9	557.9	557.0	561.6	560.7
17.5°	548.8	549.7	550.6	554.3	555.2
20°	538.8	540.6	541.5	547.0	547.0
22.5°	529.7	530.6	532.4	537.9	537.9
25°	517.8	519.7	523.3	527.9	528.8
27.5°	506.0	506.9	511.4	517.8	518.7
30°	490.5	493.2	498.7	506.0	506.9
32.5°	476.8	479.5	485.9	493.2	495.0
35°	459.5	463.1	470.4	479.5	481.4
37.5°	444.0	446.7	455.8	465.9	468.6
40°	424.8	430.3	439.4	451.3	455.8
42.5°	405.7	411.2	422.1	437.6	443.1
45°	385.6	392.0	405.7	423.0	430.3
47.5°	365.6	372.9	388.4	408.4	416.6
50°	342.8	351.9	371.0	393.8	403.0
52.5°	320.9	331.8	352.8	378.3	390.2
55°	298.1	309.1	336.4	362.8	375.6
57.5°	272.6	287.2	317.3	347.3	361.0
60°	248.9	262.6	299.0	331.8	345.5
62.5°	223.4	241.6	280.8	315.4	329.1
65°	196.9	217.0	261.6	296.3	310.0
67.5°	173.2	195.1	242.5	277.1	290.8
70°	145.0	172.3	221.5	256.2	269.9
72.5°	118.5	148.6	199.7	233.4	246.2
75°	93.0	126.7	176.9	206.9	213.3
77.5°	69.3	104.8	153.2	165.9	161.4
80°	49.2	83.9	119.4	113.0	115.8
82.5°	31.9	63.8	73.8	83.9	86.6
85°	18.2	37.4	45.6	49.2	51.1
87.5°	8.2	13.7	18.2	18.2	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)