

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: P474153

Luminaire Tested: **24CZ2-145VHE-S-UNV-L850-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474153
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-145VHE-S-UNV-L850-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

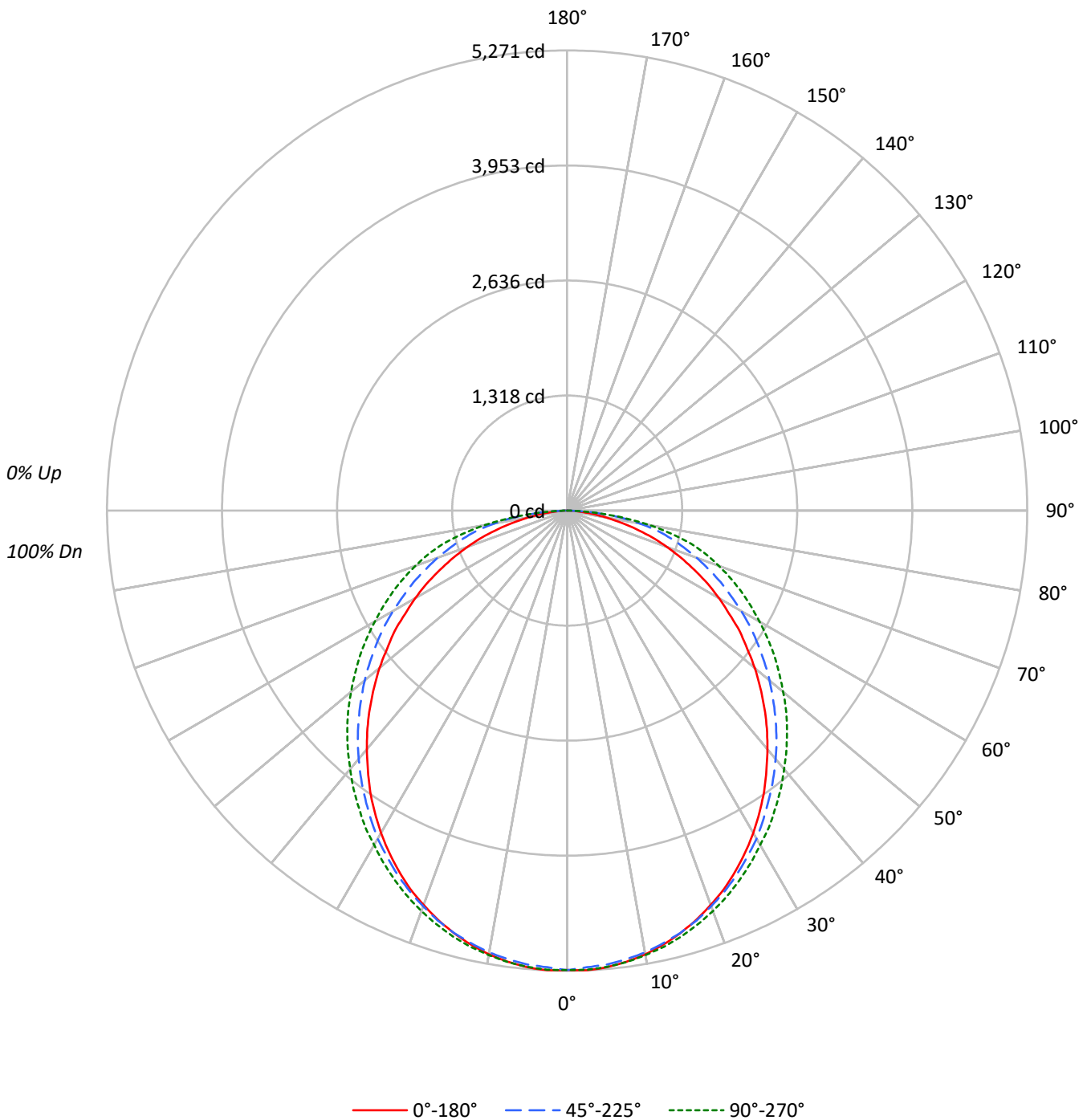
Lumens per Lamp: N/A
Luminaire Lumens: 15079.4 lumens
Efficiency: N/A
Efficacy: 143.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 105.3
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	105	101	97	93	97	93	90		93	90	87		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	59	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	55	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	34	32
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7082	7082	7082
5°	7092	7049	7086
10°	7052	7022	7063
15°	6980	6976	7035
20°	6884	6905	6990
25°	6770	6828	6935
30°	6627	6742	6869
35°	6461	6623	6831
40°	6269	6526	6791
45°	6080	6424	6777
50°	5874	6336	6761
55°	5665	6258	6798
60°	5406	6199	6845
65°	5118	6174	7011
70°	4775	6207	7259
75°	4249	6386	7649
80°	3474	6525	7466
85°	2447	5698	5812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	497.6	3.3
10°-20°	1417.2	9.4
20°-30°	2124.4	14.1
30°-40°	2530.2	16.8
40°-50°	2608.9	17.3
50°-60°	2380.6	15.8
60°-70°	1903.7	12.6
70°-80°	1243.4	8.2
80°-90°	373.3	2.5
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°	4039.3	26.8
0°-40°	6569.5	43.6
0°-60°	11559.0	76.7
0°-90°	15079.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15079.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5263	5263	5263	5263	5263	
5°	5251	5241	5219	5251	5246	498
15°	5011	5013	5008	5050	5050	1413
25°	4560	4567	4600	4666	4671	2099
35°	3933	3961	4032	4134	4159	2457
45°	3195	3252	3376	3517	3562	2464
55°	2415	2484	2668	2844	2898	2151
65°	1608	1716	1939	2130	2202	1594
75°	817	954	1228	1427	1471	869
85°	158	285	369	376	376	201
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5263.4	5263.4	5263.4	5263.4	5263.4
2.5°	5270.8	5263.4	5236.2	5268.4	5263.4
5°	5251.0	5241.1	5218.8	5251.0	5246.1
7.5°	5211.4	5206.4	5184.1	5221.3	5216.3
10°	5161.8	5156.9	5139.6	5176.7	5169.3
12.5°	5092.5	5090.0	5077.6	5122.2	5117.3
15°	5010.8	5013.2	5008.3	5050.4	5050.4
17.5°	4916.6	4914.2	4924.1	4976.1	4971.1
20°	4807.6	4810.1	4822.5	4882.0	4882.0
22.5°	4693.7	4691.2	4718.5	4777.9	4782.9
25°	4560.0	4567.4	4599.6	4666.5	4671.4
27.5°	4416.3	4428.7	4468.3	4545.1	4552.5
30°	4265.2	4280.1	4339.5	4411.3	4421.3
32.5°	4099.3	4131.5	4185.9	4277.6	4302.4
35°	3933.3	3960.6	4032.4	4133.9	4158.7
37.5°	3750.0	3794.6	3876.3	3987.8	4020.0
40°	3569.2	3613.8	3715.3	3831.8	3866.4
42.5°	3385.9	3433.0	3549.4	3680.7	3717.8
45°	3195.2	3252.2	3376.0	3517.2	3561.8
47.5°	2999.5	3066.4	3200.1	3353.7	3403.3
50°	2806.3	2873.2	3026.8	3185.3	3229.9
52.5°	2598.3	2682.5	2846.0	3016.9	3061.4
55°	2415.0	2484.3	2667.6	2843.5	2898.0
57.5°	2199.5	2293.6	2489.3	2667.6	2719.6
60°	2008.8	2095.5	2303.5	2484.3	2543.8
62.5°	1815.6	1904.7	2112.8	2318.4	2372.9
65°	1607.5	1716.5	1939.4	2130.1	2202.0
67.5°	1409.4	1523.3	1751.2	1954.3	2028.6
70°	1213.7	1330.1	1577.8	1785.8	1845.3
72.5°	1020.5	1141.8	1399.4	1602.5	1671.9
75°	817.4	953.6	1228.5	1426.7	1471.3
77.5°	626.7	777.7	1055.2	1188.9	1221.1
80°	448.3	614.3	842.1	938.7	963.5
82.5°	294.8	455.7	629.1	681.1	673.7
85°	158.5	284.8	369.1	376.5	376.5
87.5°	61.9	113.9	116.4	89.2	84.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)