

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: P294044

Luminaire Tested: **24GR-LD5-30-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294044
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-30-A19/156-UNV-L93050-W2A1-U-3500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2522.0 lumens
Efficiency: N/A
Efficacy: 123.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

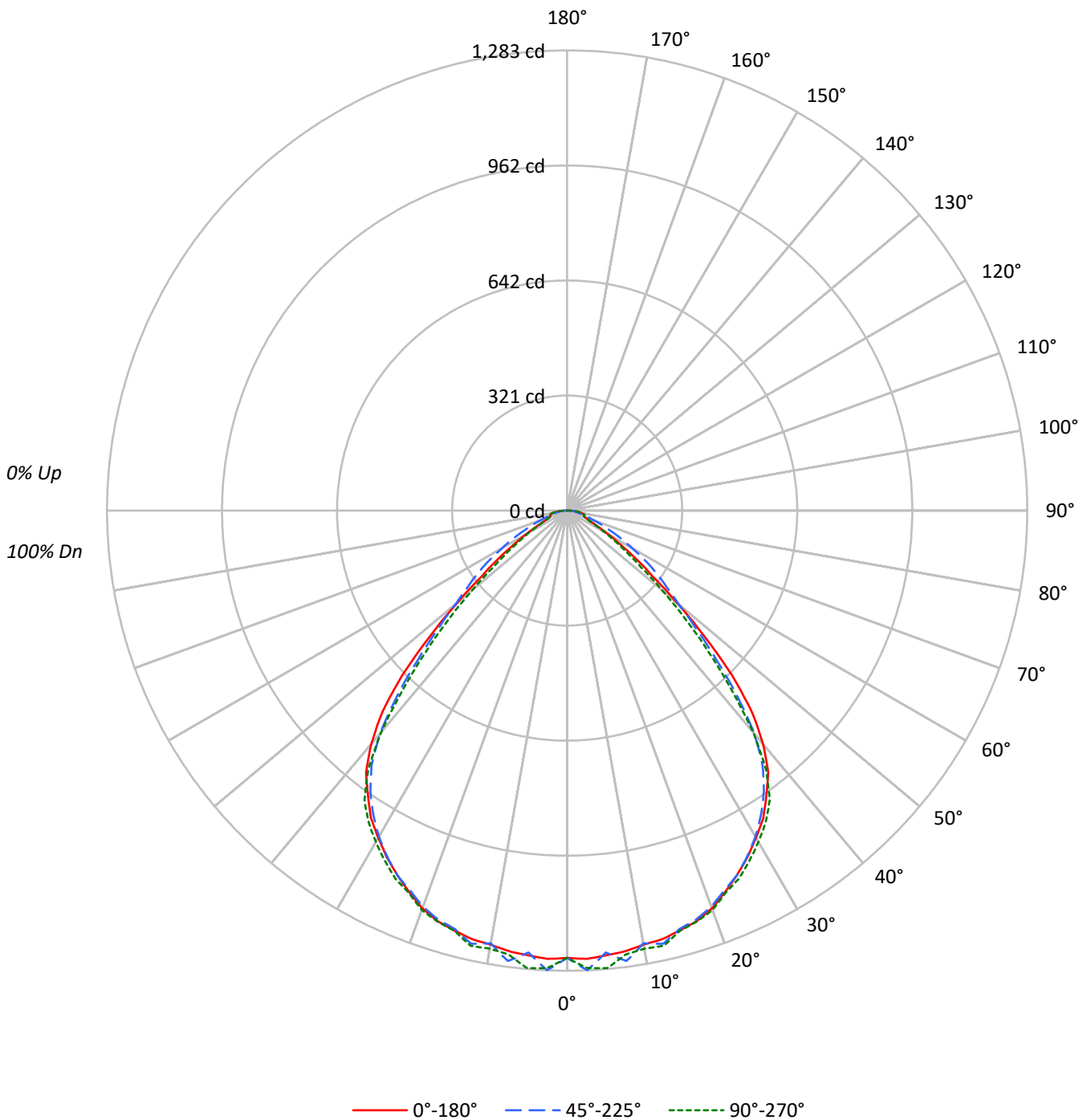
Input Watts (W): 20.374905
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1678	1678	1678
5°	1682	1671	1730
10°	1679	1674	1694
15°	1689	1683	1690
20°	1690	1683	1697
25°	1664	1665	1681
30°	1636	1631	1657
35°	1590	1571	1618
40°	1493	1426	1418
45°	1238	1120	1062
50°	832	849	726
55°	549	713	476
60°	352	562	326
65°	227	429	221
70°	201	308	201
75°	259	244	261
80°	317	210	332
85°	369	313	387



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.4	4.7
10°-20°	342.8	13.6
20°-30°	516.2	20.5
30°-40°	598.2	23.7
40°-50°	467.3	18.5
50°-60°	249.5	9.9
60°-70°	128.3	5.1
70°-80°	72.6	2.9
80°-90°	27.6	1.1
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°	978.4	38.8
0°-40°	1576.6	62.5
0°-60°	2293.5	90.9
0°-90°	2522.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2522.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1247	1247	1247	1247	1247	
5°	1245	1280	1237	1271	1281	118
15°	1212	1220	1208	1216	1213	342
25°	1121	1117	1122	1120	1132	516
35°	968	964	956	975	985	603
45°	650	651	588	583	558	490
55°	234	296	304	274	203	216
65°	71	149	135	148	69	78
75°	50	94	47	88	50	50
85°	24	31	20	31	25	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1247.1	1247.1	1247.1	1247.1	1247.1
2.5°	1251.1	1273.8	1282.7	1271.8	1276.6
5°	1245.0	1279.9	1236.9	1271.0	1280.7
7.5°	1239.4	1235.7	1266.9	1234.5	1248.3
10°	1228.8	1231.3	1225.2	1248.3	1240.2
12.5°	1224.0	1238.1	1236.9	1225.2	1243.0
15°	1212.2	1219.9	1208.2	1215.9	1213.0
17.5°	1200.5	1196.8	1195.6	1198.9	1201.7
20°	1180.2	1168.1	1175.4	1176.2	1185.1
22.5°	1151.1	1143.8	1145.4	1152.7	1153.5
25°	1120.7	1117.0	1121.5	1119.9	1132.4
27.5°	1089.1	1084.2	1087.1	1093.1	1100.8
30°	1053.1	1051.8	1049.8	1055.1	1066.8
32.5°	1017.4	1007.7	1006.1	1017.0	1030.4
35°	968.0	963.5	956.3	975.3	985.0
37.5°	921.0	907.2	895.5	906.8	910.9
40°	850.1	839.6	812.1	813.3	807.6
42.5°	763.1	755.4	702.7	693.4	677.6
45°	650.5	650.9	588.5	583.2	558.1
47.5°	519.6	542.7	488.5	482.4	445.1
50°	397.7	439.4	405.8	396.1	346.7
52.5°	298.5	359.7	349.1	328.1	260.0
55°	234.1	296.1	303.8	273.8	202.9
57.5°	176.2	243.8	256.4	231.7	156.7
60°	130.8	205.3	209.0	199.3	121.1
62.5°	97.2	174.6	169.7	170.9	89.9
65°	71.3	148.6	134.9	148.2	69.3
67.5°	58.3	128.8	104.9	128.4	56.3
70°	51.0	114.2	78.2	113.0	51.0
72.5°	49.4	104.9	62.0	100.4	49.8
75°	49.8	93.6	47.0	87.5	50.2
77.5°	45.8	77.0	35.6	74.5	47.8
80°	40.9	58.3	27.1	59.1	42.9
82.5°	34.8	42.5	21.9	43.7	36.0
85°	23.9	31.2	20.3	31.2	25.1
87.5°	11.3	18.6	12.6	17.8	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)