

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: P294045

Luminaire Tested: **24GR-LD5-30-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294045
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-4000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2723.0 lumens
Efficiency: N/A
Efficacy: 132.7 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

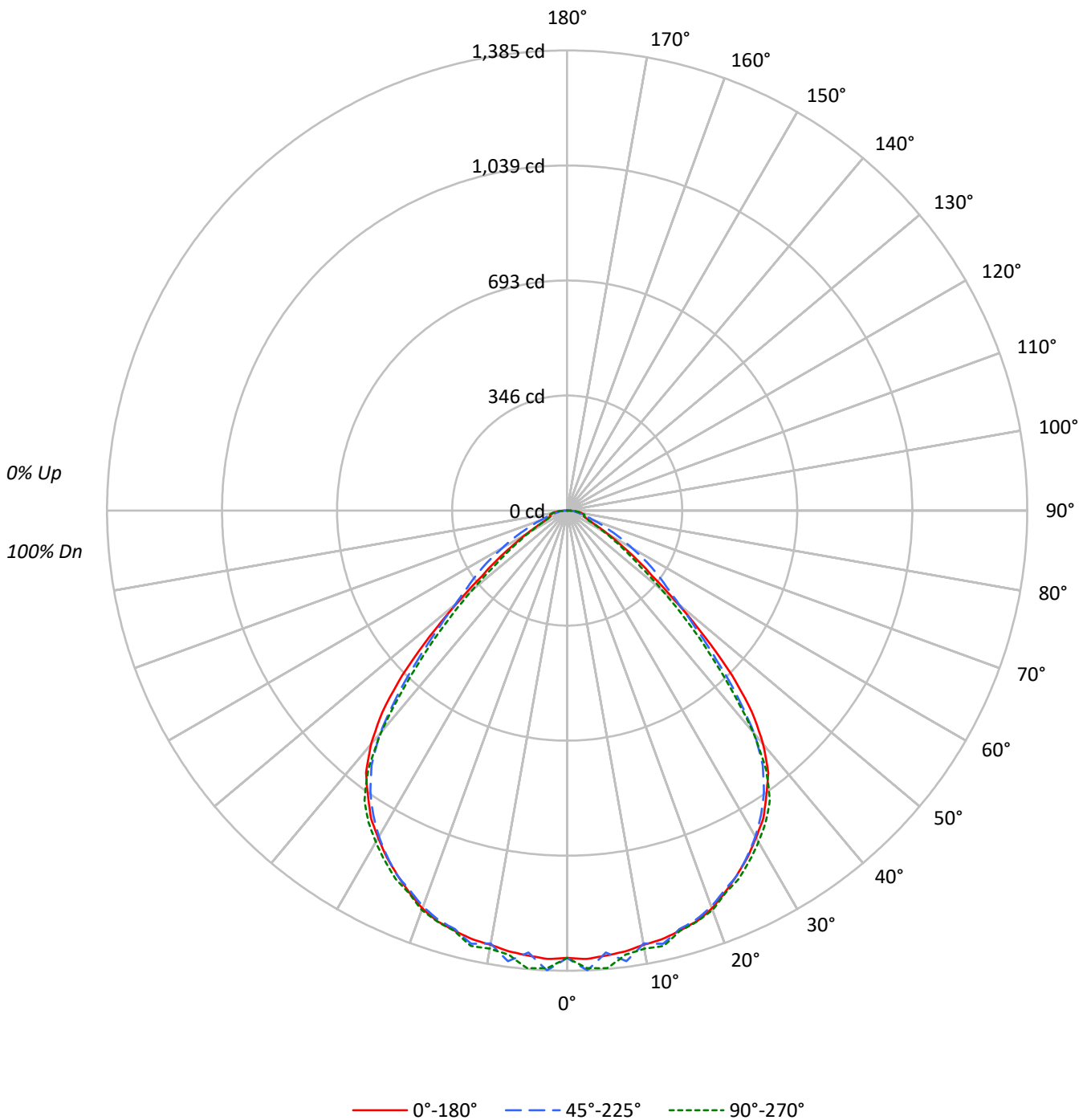
Input Watts (W): 20.51487
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1812	1812	1812
5°	1816	1804	1868
10°	1813	1807	1829
15°	1823	1817	1824
20°	1825	1817	1832
25°	1796	1798	1815
30°	1766	1761	1789
35°	1717	1696	1747
40°	1612	1540	1532
45°	1336	1209	1147
50°	899	917	783
55°	593	769	514
60°	380	607	352
65°	245	464	238
70°	217	332	217
75°	280	264	282
80°	342	227	360
85°	398	338	418



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.9	4.7
10°-20°	370.2	13.6
20°-30°	557.3	20.5
30°-40°	645.9	23.7
40°-50°	504.6	18.5
50°-60°	269.4	9.9
60°-70°	138.6	5.1
70°-80°	78.4	2.9
80°-90°	29.8	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°	1056.4	38.8
0°-40°	1702.3	62.5
0°-60°	2476.3	90.9
0°-90°	2723.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2723.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1346	1346	1346	1346	1346	
5°	1344	1382	1336	1372	1383	128
15°	1309	1317	1304	1313	1310	370
25°	1210	1206	1211	1209	1223	558
35°	1045	1040	1032	1053	1064	652
45°	702	703	635	630	603	529
55°	253	320	328	296	219	233
65°	77	160	146	160	75	85
75°	54	101	51	94	54	55
85°	26	34	22	34	27	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1346.4	1346.4	1346.4	1346.4	1346.4
2.5°	1350.8	1375.3	1384.9	1373.1	1378.4
5°	1344.3	1381.9	1335.5	1372.2	1382.7
7.5°	1338.1	1334.2	1367.9	1332.9	1347.8
10°	1326.8	1329.4	1322.8	1347.8	1339.0
12.5°	1321.5	1336.8	1335.5	1322.8	1342.1
15°	1308.8	1317.1	1304.5	1312.8	1309.7
17.5°	1296.2	1292.2	1290.9	1294.4	1297.5
20°	1274.3	1261.2	1269.0	1269.9	1279.5
22.5°	1242.8	1234.9	1236.7	1244.6	1245.4
25°	1210.0	1206.1	1210.9	1209.1	1222.7
27.5°	1175.9	1170.7	1173.7	1180.3	1188.6
30°	1137.0	1135.7	1133.5	1139.2	1151.8
32.5°	1098.5	1088.0	1086.3	1098.1	1112.5
35°	1045.1	1040.3	1032.5	1053.0	1063.5
37.5°	994.4	979.6	966.9	979.1	983.5
40°	917.9	906.5	876.8	878.1	872.0
42.5°	823.9	815.6	758.7	748.7	731.6
45°	702.3	702.7	635.4	629.7	602.6
47.5°	561.1	586.0	527.4	520.8	480.6
50°	429.4	474.5	438.2	427.7	374.3
52.5°	322.3	388.3	377.0	354.2	280.7
55°	252.8	319.7	328.0	295.6	219.1
57.5°	190.2	263.3	276.8	250.1	169.2
60°	141.2	221.7	225.6	215.2	130.8
62.5°	105.0	188.5	183.2	184.5	97.1
65°	77.0	160.5	145.6	160.1	74.8
67.5°	63.0	139.1	113.3	138.6	60.8
70°	55.1	123.3	84.4	122.0	55.1
72.5°	53.4	113.3	66.9	108.5	53.8
75°	53.8	101.0	50.7	94.5	54.2
77.5°	49.4	83.1	38.5	80.5	51.6
80°	44.2	63.0	29.3	63.8	46.4
82.5°	37.6	45.9	23.6	47.2	38.9
85°	25.8	33.7	21.9	33.7	27.1
87.5°	12.2	20.1	13.6	19.2	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)