

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: NEO-RAY

Report Number: P231587

Luminaire Tested: **S125-DR-2-27-X-0048-1-U-DD-3-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231587
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29678)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125-DR-2-27-X-0048-1-U-DD-3-W
Description: DEFINE 5 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC LENS.
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3412.1 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.24 / 1.52
Luminous Opening: Rectangular (W 3.92' x L: 0.39' x H: 0')
CIE Type: Direct

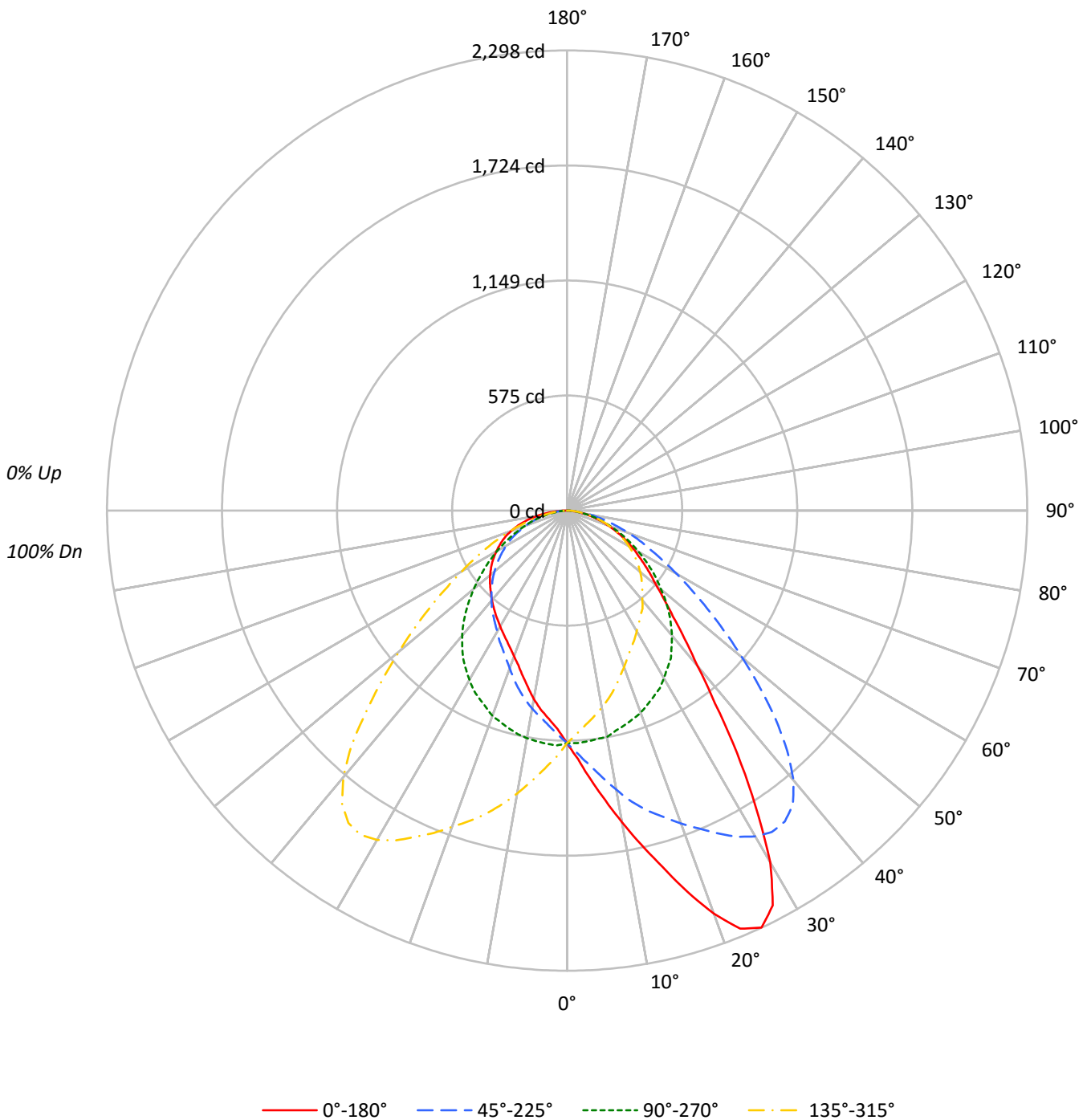
Input Watts (W): 42.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P231587

CATALOG NUMBER: S125-DR-2-27-X-0048-1-U-DD-3-W

Luminous Intensity Polar Plot





TEST NUMBER: P231587

CATALOG NUMBER: S125-DR-2-27-X-0048-1-U-DD-3-W

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	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	48	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	45	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	8185	8185	8185	8185
5°	9532	8186	7388	8270
10°	11308	8209	6840	8257
15°	13436	8090	6240	8210
20°	16067	8054	5807	8185
25°	17867	7959	5562	8061
30°	16509	7859	5438	7938
35°	12720	7762	5382	7781
40°	9296	7485	5372	7505
45°	7444	7150	5406	7128
50°	6355	6715	5503	6666
55°	5805	6302	5630	6167
60°	5379	5811	5766	5688
65°	4960	5362	5946	5197
70°	4485	4778	6129	4619
75°	3961	4228	6194	4108
80°	3283	3461	6079	3417
85°	2385	2652	5749	2652



TEST NUMBER: P231587

CATALOG NUMBER: S125-DR-2-27-X-0048-1-U-DD-3-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.3	3.3
10°-20°	350.7	10.3
20°-30°	583.0	17.1
30°-40°	678.9	19.9
40°-50°	611.8	17.9
50°-60°	491.0	14.4
60°-70°	346.1	10.1
70°-80°	187.4	5.5
80°-90°	49.9	1.5
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°	1047.0	30.7
0°-40°	1725.9	50.6
0°-60°	2828.7	82.9
0°-90°	3412.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3412.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1162	1162	1162	1162	1162	
5°	1348	1157	1044	1169	1348	136
15°	1842	1109	855	1125	1842	533
25°	2298	1024	715	1037	2298	1025
35°	1479	902	626	904	1479	924
45°	747	718	542	715	747	589
55°	472	513	458	502	472	425
65°	298	322	357	312	298	295
75°	146	155	228	151	146	155
85°	30	33	71	33	30	37
90°	0	0	0	0	0	



TEST NUMBER: P231587

CATALOG NUMBER: S125-DR-2-27-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1161.5	1161.5	1161.5	1161.5	1161.5	1161.5	1161.5	1161.5	1161.5	1161.5	1161.5
2.5°	1242.5	1231.5	1215.1	1181.2	1162.6	1126.5	1114.5	1103.6	1091.5	1099.2	1117.8
5°	1347.5	1316.8	1275.3	1206.4	1157.2	1098.1	1072.9	1053.3	1044.5	1050.0	1075.1
7.5°	1459.0	1416.4	1343.1	1233.7	1150.6	1070.8	1035.8	1011.7	1002.9	1008.4	1037.9
10°	1580.4	1519.2	1415.3	1263.2	1147.3	1050.0	998.6	966.8	955.9	964.7	1004.0
12.5°	1708.4	1622.0	1489.6	1280.7	1125.4	1015.0	960.3	917.6	903.4	916.5	966.8
15°	1841.8	1747.8	1550.9	1300.4	1109.0	985.4	918.7	869.5	855.3	869.5	926.4
17.5°	1994.9	1869.2	1604.5	1315.7	1091.5	953.7	871.7	823.6	810.4	824.7	882.6
20°	2142.6	1992.8	1662.5	1326.7	1074.0	925.3	831.2	784.2	774.4	783.1	837.8
22.5°	2259.6	2102.1	1718.2	1317.9	1048.9	884.8	790.8	752.5	742.6	748.1	798.4
25°	2297.9	2196.2	1778.4	1304.8	1023.7	846.5	755.8	729.5	715.3	719.7	762.3
27.5°	2223.5	2210.4	1836.4	1281.8	1000.8	809.4	727.3	701.1	691.2	694.5	732.8
30°	2028.9	2131.7	1879.0	1255.6	965.8	777.6	694.5	671.5	668.3	671.5	697.8
32.5°	1752.1	1974.2	1903.1	1218.4	931.9	735.0	667.2	647.5	646.4	644.2	669.4
35°	1478.7	1733.5	1895.4	1180.1	902.3	701.1	638.7	623.4	625.6	621.2	642.0
37.5°	1214.0	1474.3	1851.7	1140.8	856.4	675.9	618.0	600.5	604.8	599.4	616.9
40°	1010.6	1240.3	1758.7	1094.8	813.7	636.5	584.0	578.6	584.0	576.4	587.3
42.5°	867.3	1044.5	1627.5	1048.9	766.7	605.9	556.7	555.6	563.3	554.5	558.9
45°	747.0	883.7	1473.2	998.6	717.5	570.9	529.4	531.5	542.5	531.5	531.5
47.5°	657.3	759.0	1302.6	945.0	668.3	539.2	503.1	508.6	522.8	508.6	504.2
50°	579.7	661.7	1139.7	888.1	612.5	509.7	475.8	484.5	502.0	483.4	473.6
52.5°	525.0	583.0	989.8	826.9	563.3	474.7	447.3	459.4	480.1	459.4	443.0
55°	472.5	516.2	854.2	762.3	513.0	440.8	416.7	434.2	458.3	435.3	413.4
57.5°	424.4	460.5	733.9	694.5	461.6	406.9	387.2	408.0	433.1	408.0	382.8
60°	381.7	409.1	630.0	624.5	412.3	370.8	356.6	380.6	409.1	380.6	351.1
62.5°	339.1	360.9	538.1	553.4	365.3	333.6	324.8	351.1	382.8	351.1	321.6
65°	297.5	316.1	457.2	481.2	321.6	296.4	293.1	320.5	356.6	320.5	288.7
67.5°	255.9	270.1	391.6	413.4	274.5	257.0	257.0	289.8	329.2	288.7	251.6
70°	217.7	228.6	324.8	348.9	231.9	220.9	224.2	255.9	297.5	253.7	218.7
72.5°	180.5	189.2	261.4	282.2	192.5	184.8	190.3	224.2	263.6	222.0	188.1
75°	145.5	152.0	207.8	226.4	155.3	150.9	157.5	190.3	227.5	189.2	155.3
77.5°	112.7	118.1	157.5	171.7	118.1	118.1	124.7	160.8	189.2	158.6	123.6
80°	80.9	85.3	113.7	123.6	85.3	87.5	95.2	123.6	149.8	122.5	93.0
82.5°	53.6	56.9	75.5	82.0	56.9	59.1	66.7	94.1	109.4	89.7	65.6
85°	29.5	31.7	43.7	47.0	32.8	36.1	42.7	59.1	71.1	61.2	41.6
87.5°	10.9	12.0	18.6	19.7	14.2	16.4	21.9	31.7	37.2	32.8	21.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231587

CATALOG NUMBER: S125-DR-2-27-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1161.5	1161.5	1161.5	1161.5	1161.5	1161.5
2.5°	1132.0	1173.6	1193.2	1230.4	1246.8	1242.5
5°	1103.6	1169.2	1220.6	1293.9	1334.3	1347.5
7.5°	1077.3	1162.6	1250.1	1362.8	1438.2	1459.0
10°	1045.6	1153.9	1277.5	1433.9	1543.2	1580.4
12.5°	1021.5	1142.9	1307.0	1502.8	1653.7	1708.4
15°	988.7	1125.4	1323.4	1567.3	1767.5	1841.8
17.5°	958.1	1106.8	1338.7	1625.3	1894.3	1994.9
20°	924.2	1091.5	1345.3	1681.0	2024.5	2142.6
22.5°	888.1	1062.0	1342.0	1742.3	2143.7	2259.6
25°	847.6	1036.8	1326.7	1797.0	2221.3	2297.9
27.5°	810.4	1011.7	1302.6	1857.1	2229.0	2223.5
30°	774.4	975.6	1274.2	1898.7	2142.6	2028.9
32.5°	737.2	940.6	1235.9	1919.5	1959.9	1752.1
35°	702.2	904.5	1197.6	1904.2	1713.9	1478.7
37.5°	668.3	860.8	1156.1	1846.2	1447.0	1214.0
40°	634.4	815.9	1111.2	1737.9	1210.7	1010.6
42.5°	603.7	766.7	1065.3	1596.8	1019.3	867.3
45°	569.8	715.3	1012.8	1417.5	869.5	747.0
47.5°	541.4	661.7	959.2	1252.3	747.0	657.3
50°	507.5	608.1	900.1	1097.0	649.7	579.7
52.5°	471.4	554.5	835.6	957.0	572.0	525.0
55°	436.4	502.0	768.9	825.8	508.6	472.5
57.5°	404.7	452.8	698.9	708.7	452.8	424.4
60°	366.4	403.6	626.7	607.0	400.3	381.7
62.5°	332.5	356.6	553.4	520.6	352.2	339.1
65°	292.0	311.7	480.1	444.1	308.4	297.5
67.5°	252.6	265.8	411.2	370.8	263.6	255.9
70°	219.8	224.2	340.1	307.3	222.0	217.7
72.5°	183.7	189.2	278.9	246.1	183.7	180.5
75°	148.7	150.9	218.7	194.7	148.7	145.5
77.5°	115.9	115.9	164.1	146.6	113.7	112.7
80°	85.3	84.2	117.0	105.0	83.1	80.9
82.5°	58.0	55.8	76.6	68.9	54.7	53.6
85°	35.0	32.8	43.7	40.5	30.6	29.5
87.5°	17.5	16.4	18.6	16.4	10.9	10.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)