

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: P231589

Luminaire Tested: **S125-DR-2-35-X-0048-1-U-DD-3-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231589  
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-2-35-X-0048-1-U-DD-3-W  
Description: DEFINE 5 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC LENS.  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4420.7 lumens  
Efficiency: N/A  
Efficacy: 103.8 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

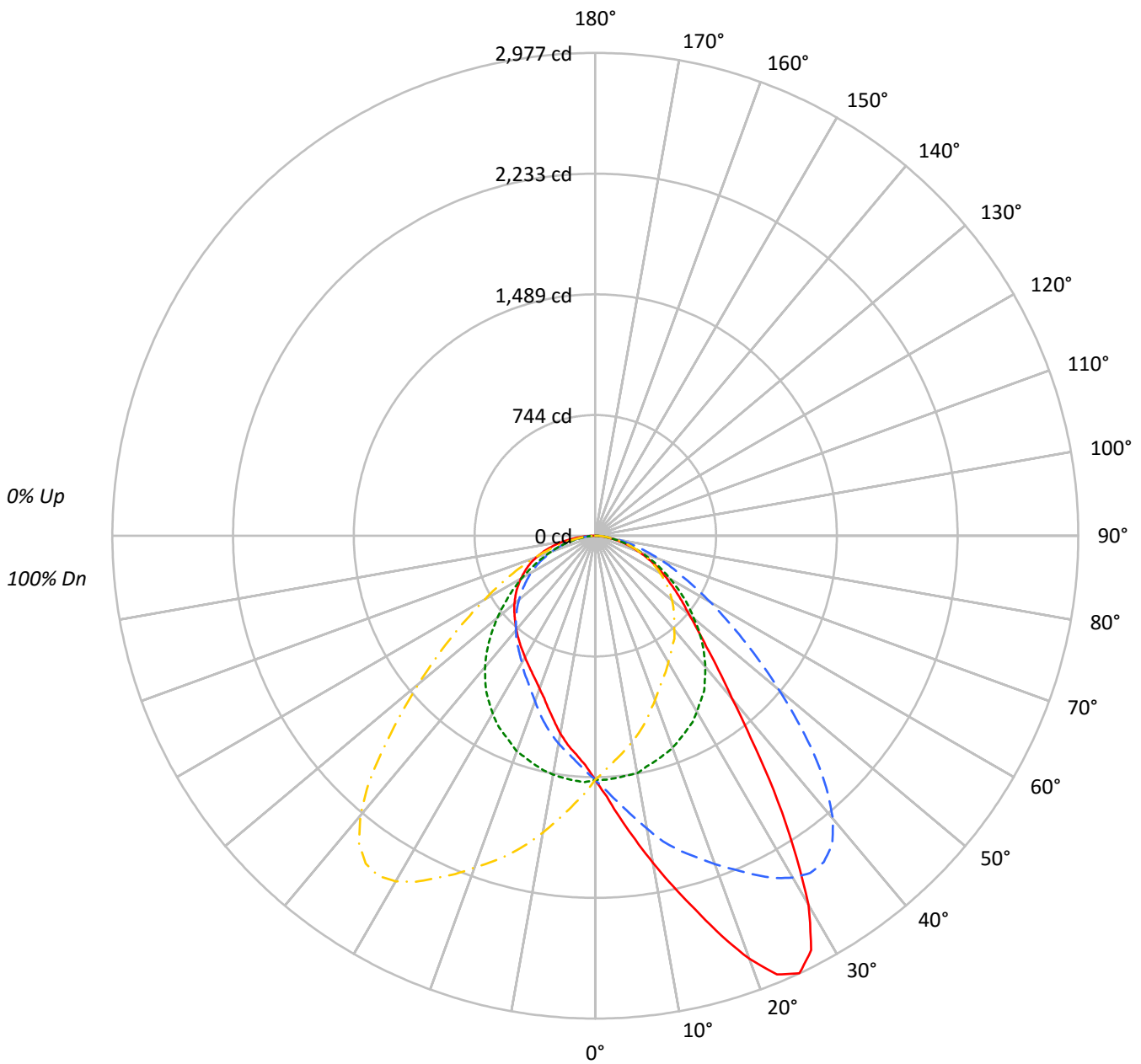
Input Watts (W): 42.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    - - - 90°-270°    - · - 135°-315°



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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	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°	10605	10605	10605	10605
5°	12348	10605	9572	10715
10°	14651	10636	8862	10697
15°	17408	10482	8084	10637
20°	20816	10435	7523	10605
25°	23147	10312	7205	10444
30°	21388	10181	7045	10285
35°	16481	10056	6972	10081
40°	12044	9697	6961	9724
45°	9645	9264	7004	9235
50°	8233	8699	7130	8638
55°	7520	8165	7294	7991
60°	6969	7529	7469	7369
65°	6426	6946	7702	6733
70°	5810	6189	7940	5985
75°	5132	5478	8024	5323
80°	4257	4484	7877	4427
85°	3097	3436	7446	3436



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.8	3.3
10°-20°	454.4	10.3
20°-30°	755.3	17.1
30°-40°	879.5	19.9
40°-50°	792.6	17.9
50°-60°	636.2	14.4
60°-70°	448.4	10.1
70°-80°	242.8	5.5
80°-90°	64.7	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°	1356.5	30.7
0°-40°	2236.0	50.6
0°-60°	3664.8	82.9
0°-90°	4420.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4420.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1505	1505	1505	1505	1505	
5°	1746	1499	1353	1515	1746	176
15°	2386	1437	1108	1458	2386	691
25°	2977	1326	927	1343	2977	1328
35°	1916	1169	810	1172	1916	1197
45°	968	930	703	927	968	763
55°	612	665	594	650	612	551
65°	385	417	462	404	385	382
75°	188	201	295	196	188	201
85°	38	42	92	42	38	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1504.9	1504.9	1504.9	1504.9	1504.9	1504.9	1504.9	1504.9	1504.9	1504.9	1504.9
2.5°	1609.7	1595.5	1574.3	1530.4	1506.3	1459.5	1443.9	1429.8	1414.2	1424.1	1448.2
5°	1745.7	1706.1	1652.2	1563.0	1499.2	1422.7	1390.1	1364.6	1353.2	1360.3	1392.9
7.5°	1890.3	1835.0	1740.1	1598.4	1490.7	1387.2	1341.9	1310.7	1299.4	1306.5	1344.7
10°	2047.6	1968.2	1833.6	1636.6	1486.4	1360.3	1293.7	1252.6	1238.5	1249.8	1300.8
12.5°	2213.4	2101.4	1930.0	1659.3	1458.1	1315.0	1244.1	1188.9	1170.4	1187.4	1252.6
15°	2386.2	2264.4	2009.3	1684.8	1436.8	1276.7	1190.3	1126.5	1108.1	1126.5	1200.2
17.5°	2584.6	2421.7	2078.7	1704.7	1414.2	1235.6	1129.4	1067.0	1050.0	1068.4	1143.5
20°	2775.9	2581.8	2153.8	1718.8	1391.5	1198.8	1076.9	1016.0	1003.2	1014.6	1085.4
22.5°	2927.5	2723.5	2226.1	1707.5	1358.9	1146.4	1024.5	974.9	962.1	969.2	1034.4
25°	2977.1	2845.3	2304.0	1690.5	1326.3	1096.8	979.1	945.1	926.7	932.4	987.7
27.5°	2880.8	2863.8	2379.1	1660.7	1296.6	1048.6	942.3	908.3	895.5	899.8	949.4
30°	2628.5	2761.7	2434.4	1626.7	1251.2	1007.5	899.8	870.0	865.8	870.0	904.0
32.5°	2270.0	2557.7	2465.6	1578.5	1207.3	952.2	864.4	838.9	837.4	834.6	867.2
35°	1915.8	2245.9	2455.7	1528.9	1169.0	908.3	827.5	807.7	810.5	804.9	831.8
37.5°	1572.9	1910.1	2399.0	1477.9	1109.5	875.7	800.6	777.9	783.6	776.5	799.2
40°	1309.3	1606.9	2278.5	1418.4	1054.2	824.7	756.7	749.6	756.7	746.8	760.9
42.5°	1123.7	1353.2	2108.5	1358.9	993.3	785.0	721.3	719.8	729.8	718.4	724.1
45°	967.8	1144.9	1908.7	1293.7	929.6	739.7	685.8	688.7	702.8	688.7	688.7
47.5°	851.6	983.4	1687.7	1224.3	865.8	698.6	651.8	658.9	677.3	658.9	653.2
50°	751.0	857.3	1476.5	1150.6	793.5	660.3	616.4	627.7	650.4	626.3	613.6
52.5°	680.2	755.3	1282.4	1071.3	729.8	615.0	579.6	595.1	622.1	595.1	573.9
55°	612.1	668.8	1106.7	987.7	664.6	571.1	539.9	562.6	593.7	564.0	535.6
57.5°	549.8	596.6	950.8	899.8	598.0	527.1	501.6	528.5	561.1	528.5	496.0
60°	494.5	530.0	816.2	809.1	534.2	480.4	461.9	493.1	530.0	493.1	454.9
62.5°	439.3	467.6	697.2	717.0	473.3	432.2	420.8	454.9	496.0	454.9	416.6
65°	385.4	409.5	592.3	623.5	416.6	384.0	379.8	415.2	461.9	415.2	374.1
67.5°	331.6	350.0	507.3	535.6	355.7	333.0	333.0	375.5	426.5	374.1	325.9
70°	282.0	296.2	420.8	452.0	300.4	286.2	290.5	331.6	385.4	328.7	283.4
72.5°	233.8	245.1	338.7	365.6	249.4	239.5	246.6	290.5	341.5	287.7	243.7
75°	188.5	197.0	269.2	293.3	201.2	195.5	204.0	246.6	294.7	245.1	201.2
77.5°	146.0	153.0	204.0	222.5	153.0	153.0	161.5	208.3	245.1	205.5	160.1
80°	104.9	110.5	147.4	160.1	110.5	113.4	123.3	160.1	194.1	158.7	120.4
82.5°	69.4	73.7	97.8	106.3	73.7	76.5	86.4	121.9	141.7	116.2	85.0
85°	38.3	41.1	56.7	60.9	42.5	46.8	55.3	76.5	92.1	79.4	53.8
87.5°	14.2	15.6	24.1	25.5	18.4	21.3	28.3	41.1	48.2	42.5	28.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1504.9	1504.9	1504.9	1504.9	1504.9	1504.9
2.5°	1466.6	1520.4	1545.9	1594.1	1615.4	1609.7
5°	1429.8	1514.8	1581.4	1676.3	1728.7	1745.7
7.5°	1395.7	1506.3	1619.6	1765.6	1863.4	1890.3
10°	1354.7	1494.9	1655.1	1857.7	1999.4	2047.6
12.5°	1323.5	1480.8	1693.3	1947.0	2142.5	2213.4
15°	1281.0	1458.1	1714.6	2030.6	2289.9	2386.2
17.5°	1241.3	1434.0	1734.4	2105.7	2454.2	2584.6
20°	1197.4	1414.2	1742.9	2177.9	2622.9	2775.9
22.5°	1150.6	1375.9	1738.7	2257.3	2777.3	2927.5
25°	1098.2	1343.3	1718.8	2328.1	2877.9	2977.1
27.5°	1050.0	1310.7	1687.7	2406.1	2887.9	2880.8
30°	1003.2	1264.0	1650.8	2459.9	2775.9	2628.5
32.5°	955.1	1218.6	1601.2	2486.8	2539.3	2270.0
35°	909.7	1171.9	1551.6	2467.0	2220.4	1915.8
37.5°	865.8	1115.2	1497.8	2391.9	1874.7	1572.9
40°	821.9	1057.1	1439.7	2251.6	1568.6	1309.3
42.5°	782.2	993.3	1380.2	2068.8	1320.6	1123.7
45°	738.3	926.7	1312.1	1836.4	1126.5	967.8
47.5°	701.4	857.3	1242.7	1622.5	967.8	851.6
50°	657.5	787.9	1166.2	1421.3	841.7	751.0
52.5°	610.7	718.4	1082.6	1239.9	741.1	680.2
55°	565.4	650.4	996.2	1069.8	658.9	612.1
57.5°	524.3	586.6	905.5	918.2	586.6	549.8
60°	474.7	522.9	811.9	786.4	518.6	494.5
62.5°	430.8	461.9	717.0	674.5	456.3	439.3
65°	378.3	403.8	622.1	575.3	399.6	385.4
67.5°	327.3	344.3	532.8	480.4	341.5	331.6
70°	284.8	290.5	440.7	398.2	287.7	282.0
72.5°	238.1	245.1	361.3	318.8	238.1	233.8
75°	192.7	195.5	283.4	252.2	192.7	188.5
77.5°	150.2	150.2	212.6	189.9	147.4	146.0
80°	110.5	109.1	151.6	136.0	107.7	104.9
82.5°	75.1	72.3	99.2	89.3	70.9	69.4
85°	45.3	42.5	56.7	52.4	39.7	38.3
87.5°	22.7	21.3	24.1	21.3	14.2	14.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)