

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: P231586

Luminaire Tested: **S125-DR-1-40-X-0048-1-U-DD-3-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231586  
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-1-40-X-0048-1-U-DD-3-W  
Description: DEFINE 5 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC LENS.  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3179.7 lumens  
Efficiency: N/A  
Efficacy: 114.0 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

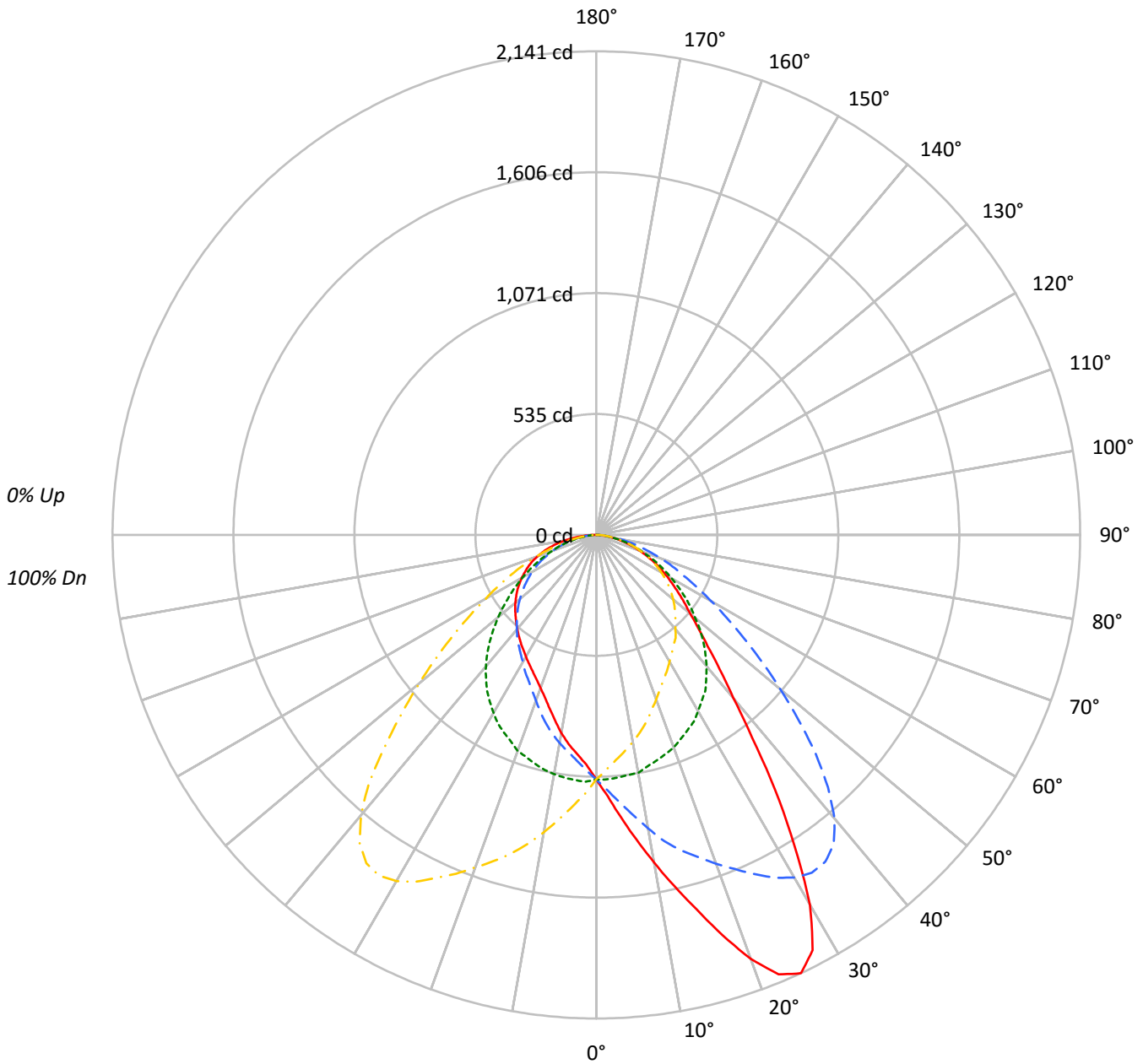
Input Watts (W): 27.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	7627	7627	7627	7627
5°	8882	7627	6885	7707
10°	10538	7651	6374	7694
15°	12522	7540	5814	7651
20°	14973	7506	5411	7628
25°	16650	7418	5183	7512
30°	15384	7323	5067	7398
35°	11854	7234	5015	7251
40°	8663	6975	5007	6994
45°	6937	6663	5038	6643
50°	5922	6258	5128	6213
55°	5409	5872	5247	5747
60°	5013	5415	5372	5301
65°	4622	4997	5541	4844
70°	4178	4452	5711	4304
75°	3692	3940	5772	3831
80°	3060	3226	5665	3186
85°	2223	2474	5352	2474



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.6	3.3
10°-20°	326.8	10.3
20°-30°	543.3	17.1
30°-40°	632.6	19.9
40°-50°	570.1	17.9
50°-60°	457.6	14.4
60°-70°	322.5	10.1
70°-80°	174.7	5.5
80°-90°	46.5	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°	975.7	30.7
0°-40°	1608.3	50.6
0°-60°	2636.0	82.9
0°-90°	3179.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3179.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1082	1082	1082	1082	1082	
5°	1256	1078	973	1090	1256	126
15°	1716	1034	797	1049	1716	497
25°	2141	954	667	966	2141	955
35°	1378	841	583	843	1378	861
45°	696	669	506	667	696	549
55°	440	478	427	468	440	396
65°	277	300	332	290	277	275
75°	136	145	212	141	136	144
85°	28	31	66	31	28	34
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°	1082.4	1082.4	1082.4	1082.4	1082.4	1082.4	1082.4	1082.4	1082.4	1082.4	1082.4
2.5°	1157.8	1147.7	1132.4	1100.8	1083.4	1049.8	1038.6	1028.4	1017.2	1024.3	1041.7
5°	1255.7	1227.2	1188.4	1124.2	1078.3	1023.3	999.9	981.5	973.4	978.5	1001.9
7.5°	1359.7	1319.9	1251.6	1149.7	1072.2	997.8	965.2	942.8	934.6	939.7	967.2
10°	1472.8	1415.7	1318.9	1177.2	1069.2	978.5	930.6	901.0	890.8	899.0	935.7
12.5°	1592.0	1511.5	1388.2	1193.5	1048.8	945.8	894.9	855.1	841.9	854.1	901.0
15°	1716.4	1628.7	1445.3	1211.9	1033.5	918.3	856.2	810.3	797.0	810.3	863.3
17.5°	1859.1	1741.9	1495.2	1226.1	1017.2	888.8	812.3	767.5	755.2	768.5	822.5
20°	1996.7	1857.0	1549.2	1236.3	1000.9	862.3	774.6	730.8	721.6	729.8	780.7
22.5°	2105.7	1959.0	1601.2	1228.2	977.4	824.6	736.9	701.2	692.1	697.2	744.0
25°	2141.4	2046.6	1657.3	1215.9	954.0	788.9	704.3	679.8	666.6	670.7	710.4
27.5°	2072.1	2059.9	1711.3	1194.5	932.6	754.2	677.8	653.3	644.2	647.2	682.9
30°	1890.7	1986.5	1751.0	1170.1	900.0	724.7	647.2	625.8	622.7	625.8	650.3
32.5°	1632.8	1839.7	1773.5	1135.4	868.4	684.9	621.7	603.4	602.4	600.3	623.8
35°	1378.0	1615.5	1766.3	1099.7	840.9	653.3	595.2	581.0	583.0	578.9	598.3
37.5°	1131.3	1373.9	1725.6	1063.1	798.1	629.9	575.9	559.6	563.6	558.5	574.8
40°	941.8	1155.8	1638.9	1020.2	758.3	593.2	544.3	539.2	544.3	537.1	547.3
42.5°	808.2	973.4	1516.6	977.4	714.5	564.7	518.8	517.8	524.9	516.7	520.8
45°	696.1	823.5	1372.9	930.6	668.6	532.0	493.3	495.3	505.5	495.3	495.3
47.5°	612.6	707.3	1213.9	880.6	622.7	502.5	468.8	473.9	487.2	473.9	469.9
50°	540.2	616.6	1062.0	827.6	570.8	475.0	443.4	451.5	467.8	450.5	441.3
52.5°	489.2	543.2	922.4	770.5	524.9	442.3	416.9	428.1	447.4	428.1	412.8
55°	440.3	481.1	796.0	710.4	478.0	410.7	388.3	404.6	427.1	405.7	385.3
57.5°	395.5	429.1	683.9	647.2	430.1	379.2	360.8	380.2	403.6	380.2	356.7
60°	355.7	381.2	587.1	582.0	384.2	345.5	332.3	354.7	381.2	354.7	327.2
62.5°	316.0	336.3	501.5	515.7	340.4	310.9	302.7	327.2	356.7	327.2	299.7
65°	277.2	294.6	426.0	448.5	299.7	276.2	273.2	298.6	332.3	298.6	269.1
67.5°	238.5	251.7	364.9	385.3	255.8	239.5	239.5	270.1	306.8	269.1	234.4
70°	202.8	213.0	302.7	325.1	216.1	205.9	208.9	238.5	277.2	236.5	203.8
72.5°	168.2	176.3	243.6	263.0	179.4	172.2	177.3	208.9	245.6	206.9	175.3
75°	135.6	141.7	193.7	211.0	144.7	140.7	146.8	177.3	212.0	176.3	144.7
77.5°	105.0	110.1	146.8	160.0	110.1	110.1	116.2	149.8	176.3	147.8	115.2
80°	75.4	79.5	106.0	115.2	79.5	81.5	88.7	115.2	139.6	114.2	86.6
82.5°	49.9	53.0	70.3	76.4	53.0	55.0	62.2	87.7	101.9	83.6	61.2
85°	27.5	29.6	40.8	43.8	30.6	33.6	39.7	55.0	66.2	57.1	38.7
87.5°	10.2	11.2	17.3	18.3	13.2	15.3	20.4	29.6	34.7	30.6	20.4
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°	1082.4	1082.4	1082.4	1082.4	1082.4	1082.4
2.5°	1054.9	1093.6	1112.0	1146.6	1161.9	1157.8
5°	1028.4	1089.6	1137.5	1205.7	1243.5	1255.7
7.5°	1003.9	1083.4	1165.0	1270.0	1340.3	1359.7
10°	974.4	1075.3	1190.5	1336.2	1438.1	1472.8
12.5°	952.0	1065.1	1218.0	1400.4	1541.1	1592.0
15°	921.4	1048.8	1233.3	1460.6	1647.1	1716.4
17.5°	892.8	1031.5	1247.5	1514.6	1765.3	1859.1
20°	861.2	1017.2	1253.7	1566.6	1886.6	1996.7
22.5°	827.6	989.7	1250.6	1623.6	1997.7	2105.7
25°	789.9	966.2	1236.3	1674.6	2070.1	2141.4
27.5°	755.2	942.8	1213.9	1730.7	2077.2	2072.1
30°	721.6	909.2	1187.4	1769.4	1996.7	1890.7
32.5°	687.0	876.5	1151.7	1788.7	1826.5	1632.8
35°	654.3	842.9	1116.1	1774.5	1597.1	1378.0
37.5°	622.7	802.1	1077.3	1720.5	1348.4	1131.3
40°	591.2	760.3	1035.5	1619.6	1128.3	941.8
42.5°	562.6	714.5	992.7	1488.1	949.9	808.2
45°	531.0	666.6	943.8	1320.9	810.3	696.1
47.5°	504.5	616.6	893.9	1167.0	696.1	612.6
50°	472.9	566.7	838.8	1022.3	605.4	540.2
52.5°	439.3	516.7	778.7	891.8	533.1	489.2
55°	406.7	467.8	716.5	769.5	473.9	440.3
57.5°	377.1	422.0	651.3	660.5	422.0	395.5
60°	341.4	376.1	584.0	565.7	373.0	355.7
62.5°	309.8	332.3	515.7	485.2	328.2	316.0
65°	272.1	290.5	447.4	413.8	287.4	277.2
67.5°	235.4	247.7	383.2	345.5	245.6	238.5
70°	204.9	208.9	317.0	286.4	206.9	202.8
72.5°	171.2	176.3	259.9	229.3	171.2	168.2
75°	138.6	140.7	203.8	181.4	138.6	135.6
77.5°	108.0	108.0	152.9	136.6	106.0	105.0
80°	79.5	78.5	109.1	97.8	77.5	75.4
82.5°	54.0	52.0	71.3	64.2	51.0	49.9
85°	32.6	30.6	40.8	37.7	28.5	27.5
87.5°	16.3	15.3	17.3	15.3	10.2	10.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)