

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: P231640

Luminaire Tested: **S125-DR-LO-30-X-0048-1-U-DD-4-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231640  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33919)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125-DR-LO-30-X-0048-1-U-DD-4-W  
Description: DEFINE 5 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH DROP LENS.  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1324.7 lumens  
Efficiency: N/A  
Efficacy: 97.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.24 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.92' x H: 0.08')  
CIE Type: Direct

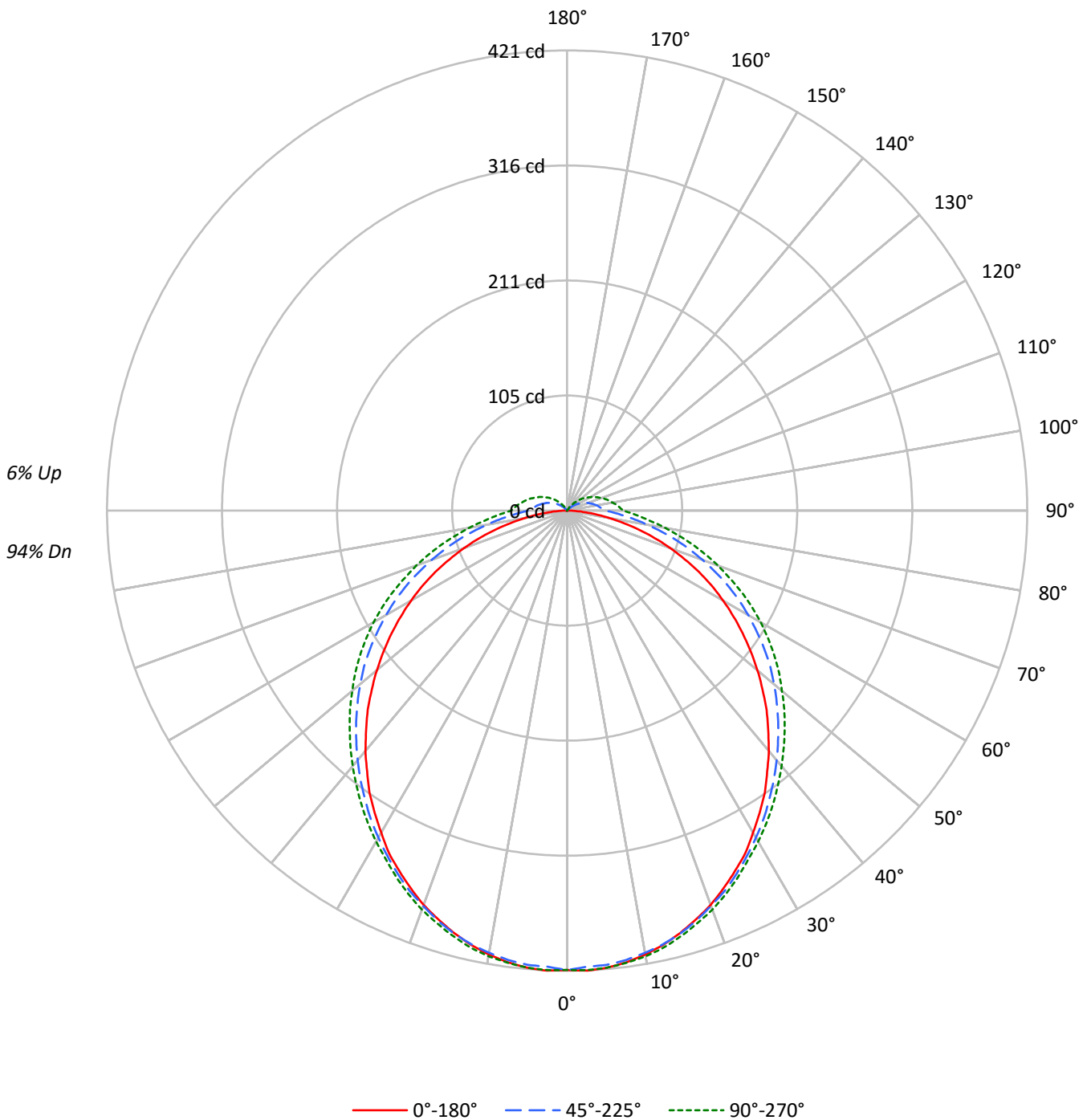
Input Watts (W): 13.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P231640

CATALOG NUMBER: S125-DR-LO-30-X-0048-1-U-DD-4-W

### Luminous Intensity Polar Plot





TEST NUMBER: P231640

CATALOG NUMBER: S125-DR-LO-30-X-0048-1-U-DD-4-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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	87	80	74	93	85	78	73	80	75	70	76	72	68	72	69	65	63
3	87	77	68	61	84	74	67	60	71	64	58	67	61	57	64	59	55	52
4	80	68	59	52	77	66	57	51	63	55	50	59	53	48	57	51	47	45
5	73	60	51	44	71	59	50	44	56	48	43	53	47	42	51	45	41	38
6	68	54	45	39	65	53	44	38	51	43	37	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	32	30
8	58	45	36	30	57	44	36	30	42	35	29	40	34	29	39	33	28	26
9	55	41	33	27	53	40	32	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	24	36	29	24	34	28	24	33	27	23	21

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

	0°	45°	90°
0°	2962	2962	2962
5°	2964	2909	2915
10°	2941	2857	2856
15°	2902	2797	2782
20°	2857	2722	2704
25°	2799	2646	2616
30°	2735	2565	2532
35°	2672	2485	2456
40°	2595	2407	2382
45°	2518	2334	2311
50°	2430	2261	2241
55°	2338	2185	2179
60°	2241	2095	2103
65°	2124	1996	2010
70°	1954	1862	1905
75°	1733	1723	1789
80°	1394	1555	1670
85°	982	1437	1600



TEST NUMBER: P231640

CATALOG NUMBER: S125-DR-LO-30-X-0048-1-U-DD-4-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.8	3.0
10°-20°	113.3	8.6
20°-30°	169.4	12.8
30°-40°	202.0	15.2
40°-50°	210.0	15.9
50°-60°	194.5	14.7
60°-70°	157.2	11.9
70°-80°	104.4	7.9
80°-90°	53.1	4.0
90°-100°	30.2	2.3
100°-110°	22.7	1.7
110°-120°	15.1	1.1
120°-130°	8.6	0.6
130°-140°	3.7	0.3
140°-150°	0.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	322.4	24.3
0°-40°	524.4	39.6
0°-60°	928.9	70.1
0°-90°	1243.7	93.9
90°-120°	68.0	5.1
90°-150°	81.0	6.1
90°-180°	81.0	6.1
0°-180°	1324.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	420	419	417	420	420	40
15°	400	401	400	404	403	113
25°	364	367	367	370	370	168
35°	315	319	322	327	328	197
45°	258	266	273	280	281	199
55°	196	208	220	228	232	175
65°	133	147	162	173	176	132
75°	69	85	102	114	118	73
85°	15	33	52	64	68	17
90°	0	17	35	47	51	1
95°	0	14	31	43	47	0
105°	0	8	24	34	38	0
115°	0	4	17	26	29	0
125°	0	0	9	18	20	0
135°	0	0	3	9	11	0
145°	0	0	0	2	4	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P231640

CATALOG NUMBER: S125-DR-LO-30-X-0048-1-U-DD-4-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	420.3	420.3	420.3	420.3	420.3
2.5°	421.3	420.8	417.7	420.8	420.8
5°	419.8	419.3	417.2	419.8	419.8
7.5°	416.7	416.7	414.6	417.7	417.2
10°	412.5	413.0	410.9	414.1	414.1
12.5°	406.8	407.3	406.3	409.4	409.4
15°	400.0	401.1	400.5	403.7	403.1
17.5°	392.2	394.3	393.3	396.4	395.9
20°	383.9	386.0	384.9	388.6	388.6
22.5°	374.0	376.6	376.6	379.7	379.7
25°	363.6	366.7	366.7	370.4	369.9
27.5°	353.2	356.3	356.3	360.0	359.4
30°	340.2	344.4	345.4	349.6	349.6
32.5°	327.7	332.4	334.5	338.1	339.2
35°	315.2	319.4	322.5	327.2	328.2
37.5°	300.7	306.9	310.5	316.3	316.8
40°	287.1	293.4	298.1	304.3	305.3
42.5°	272.1	279.9	285.6	292.3	293.4
45°	258.0	265.8	273.1	279.9	281.4
47.5°	242.4	251.8	260.1	267.4	269.5
50°	227.3	237.2	247.1	254.9	256.5
52.5°	211.7	222.6	234.1	241.9	244.5
55°	196.1	207.6	220.0	228.4	231.5
57.5°	180.5	193.0	205.5	214.8	218.0
60°	164.9	177.4	191.4	200.8	204.4
62.5°	149.3	161.8	176.9	186.7	190.4
65°	133.2	146.7	162.3	172.7	175.8
67.5°	116.5	131.1	146.7	157.6	160.7
70°	100.4	115.5	131.6	143.1	146.7
72.5°	84.3	99.9	117.0	128.5	132.1
75°	68.7	84.8	102.5	113.9	118.1
77.5°	53.1	70.2	87.9	99.9	104.0
80°	38.5	56.2	74.4	86.4	91.0
82.5°	26.0	43.7	62.4	74.9	78.5
85°	15.1	32.8	51.5	64.0	68.1
87.5°	6.8	23.9	42.7	54.6	58.8
90°	0.0	16.6	34.9	47.3	51.0
92.5°	0.0	15.1	32.8	44.7	48.9
95°	0.0	13.5	30.7	42.7	46.8
97.5°	0.0	12.5	29.1	40.6	44.7
100°	0.0	10.9	27.6	38.5	42.1
102.5°	0.0	9.9	25.5	36.4	40.1
105°	0.0	8.3	23.9	34.3	38.0
107.5°	0.5	7.3	21.8	32.3	35.9
110°	0.5	6.2	20.3	30.2	33.3



TEST NUMBER: P231640

CATALOG NUMBER: S125-DR-LO-30-X-0048-1-U-DD-4-W

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	4.7	18.2	28.1	31.2
115°	0.0	3.6	16.6	26.0	29.1
117.5°	0.0	2.6	14.6	23.9	27.0
120°	0.5	1.6	13.0	21.8	24.4
122.5°	0.5	0.5	11.4	19.2	22.4
125°	0.5	0.5	9.4	17.7	20.3
127.5°	0.0	0.5	7.8	15.6	18.2
130°	0.5	0.0	6.2	13.5	16.1
132.5°	0.5	0.5	4.7	11.4	14.0
135°	0.5	0.0	3.1	9.4	11.4
137.5°	0.5	0.0	2.1	7.3	9.4
140°	0.5	0.5	0.5	5.7	7.3
142.5°	0.5	0.5	0.0	3.6	5.2
145°	0.5	0.5	0.0	2.1	3.6
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)