

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: P242855

Luminaire Tested: **S125DR-S610D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242855  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DR-S610D930-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1849.8 lumens  
Efficiency: N/A  
Efficacy: 98.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')  
CIE Type: Direct

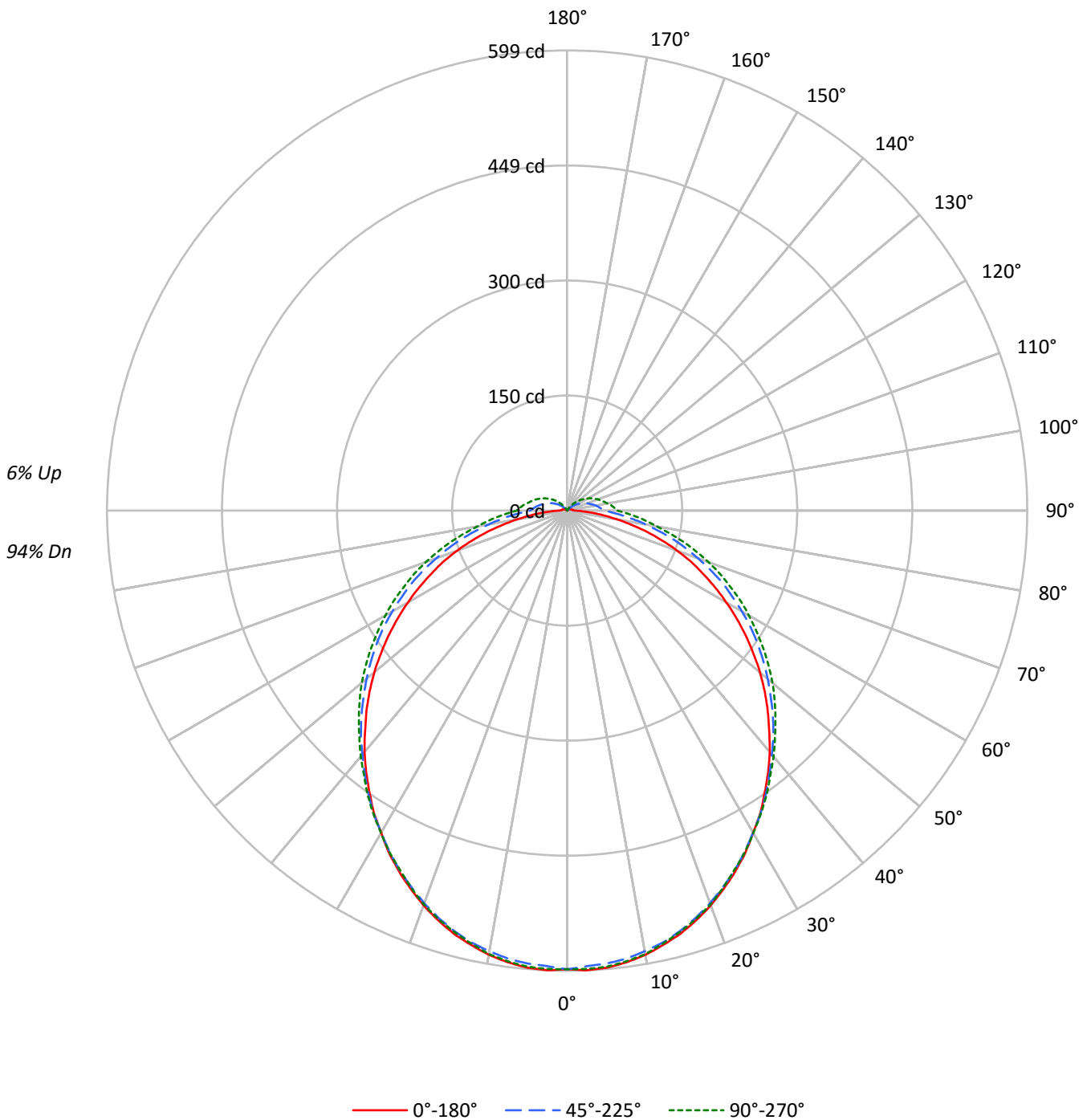
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P242855

CATALOG NUMBER: S125DR-S610D930-X4F0-XX-UDD-D-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242855

CATALOG NUMBER: S125DR-S610D930-X4F0-XX-UDD-D-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	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

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

	0°	45°	90°
0°	4244	4244	4244
5°	4252	4162	4174
10°	4222	4084	4076
15°	4172	3992	3952
20°	4104	3879	3829
25°	4023	3758	3678
30°	3924	3626	3542
35°	3833	3504	3416
40°	3740	3376	3290
45°	3635	3265	3176
50°	3534	3145	3076
55°	3413	3032	2958
60°	3281	2902	2838
65°	3143	2766	2703
70°	2986	2582	2562
75°	2738	2403	2390
80°	2415	2184	2201
85°	2108	2027	2126



TEST NUMBER: P242855

CATALOG NUMBER: S125DR-S610D930-X4F0-XX-UDD-D-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.5	3.1
10°-20°	160.4	8.7
20°-30°	238.5	12.9
30°-40°	282.5	15.3
40°-50°	292.0	15.8
50°-60°	269.0	14.5
60°-70°	217.5	11.8
70°-80°	145.5	7.9
80°-90°	75.2	4.1
90°-100°	42.4	2.3
100°-110°	31.2	1.7
110°-120°	20.9	1.1
120°-130°	11.8	0.6
130°-140°	5.2	0.3
140°-150°	1.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	455.4	24.6
0°-40°	737.9	39.9
0°-60°	1299.0	70.2
0°-90°	1737.2	93.9
90°-120°	94.5	5.1
90°-150°	112.6	6.1
90°-180°	113.0	6.1
0°-180°	1849.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	597	597	597	597	597	
5°	597	596	592	596	596	57
15°	570	571	567	570	568	161
25°	518	520	516	519	516	239
35°	448	452	451	452	452	281
45°	369	376	379	383	383	285
55°	284	293	303	309	311	254
65°	196	209	223	232	234	194
75°	108	123	142	153	156	114
85°	32	52	72	85	90	34
90°	9	28	48	62	66	7
95°	8	23	43	56	60	6
105°	5	15	32	44	48	6
115°	4	8	23	33	37	3
125°	2	2	14	23	26	2
135°	1	1	5	12	15	1
145°	1	0	0	3	5	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: P242855

CATALOG NUMBER: S125DR-S610D930-X4F0-XX-UDD-D-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	597.1	597.1	597.1	597.1	597.1
2.5°	598.9	597.7	593.6	597.7	597.1
5°	597.1	595.9	591.8	596.5	595.9
7.5°	593.0	592.4	588.3	592.4	591.8
10°	587.2	587.2	582.5	586.6	586.0
12.5°	579.0	579.6	576.0	579.0	577.2
15°	570.2	570.8	566.7	570.2	567.8
17.5°	559.1	560.2	556.1	559.1	557.3
20°	546.8	547.9	543.8	545.6	545.6
22.5°	532.7	535.1	530.4	532.7	531.0
25°	518.1	519.8	516.3	518.7	515.7
27.5°	502.3	504.6	500.5	502.3	501.1
30°	484.1	487.6	484.1	485.3	484.7
32.5°	467.7	470.7	468.3	469.5	468.9
35°	448.4	452.5	450.8	452.5	452.5
37.5°	429.7	433.2	432.6	435.0	434.4
40°	410.4	415.1	414.5	416.8	418.0
42.5°	389.3	395.7	397.5	400.4	400.4
45°	369.4	375.8	378.8	382.9	383.4
47.5°	348.9	354.8	359.4	365.3	366.5
50°	327.8	334.3	340.7	347.1	348.9
52.5°	305.6	313.8	322.0	329.0	330.2
55°	283.9	293.3	302.7	309.1	311.4
57.5°	261.7	272.8	283.3	290.4	292.1
60°	239.4	251.1	262.8	271.6	273.4
62.5°	217.8	229.5	242.4	252.3	254.7
65°	195.5	209.0	223.0	231.8	234.2
67.5°	175.0	187.9	202.0	212.5	215.4
70°	152.2	165.7	180.9	192.0	195.5
72.5°	130.0	144.0	161.0	173.3	175.6
75°	107.7	122.9	141.7	153.4	156.3
77.5°	86.1	103.6	121.2	134.1	136.4
80°	66.2	83.7	103.6	116.5	118.8
82.5°	48.0	66.7	87.2	99.5	104.2
85°	32.2	51.5	72.0	84.9	89.6
87.5°	20.5	39.2	59.1	72.6	76.7
90°	9.4	28.1	48.0	61.5	65.6
92.5°	8.2	25.2	45.7	58.5	62.6
95°	7.6	22.8	42.7	55.6	59.7
97.5°	7.0	21.1	40.4	52.7	56.8
100°	6.4	18.7	37.5	49.8	53.3
102.5°	5.9	17.0	35.1	46.8	50.3
105°	5.3	14.6	32.2	43.9	48.0
107.5°	4.7	12.9	29.9	41.6	45.1
110°	4.1	11.1	27.5	38.6	42.7



TEST NUMBER: P242855

CATALOG NUMBER: S125DR-S610D930-X4F0-XX-UDD-D-W

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.1	9.4	25.2	35.7	39.8
115°	3.5	7.6	22.8	33.4	36.9
117.5°	2.9	5.9	20.5	30.4	34.5
120°	2.9	4.7	18.1	28.1	31.6
122.5°	2.3	2.9	15.8	25.2	28.7
125°	2.3	1.8	13.5	22.8	25.8
127.5°	1.8	1.2	11.1	19.9	23.4
130°	1.8	1.2	9.4	17.6	20.5
132.5°	1.2	1.2	7.0	15.2	17.6
135°	1.2	0.6	4.7	12.3	15.2
137.5°	1.2	0.6	2.9	10.0	12.3
140°	0.6	0.6	1.2	7.6	10.0
142.5°	0.6	0.0	0.0	5.3	7.6
145°	0.6	0.0	0.0	2.9	5.3
147.5°	0.0	0.0	0.0	1.2	2.3
150°	0.0	0.0	0.0	0.0	0.6
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)