

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: P242836

Luminaire Tested: **S125DR-S610D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242836  
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-S610D927-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1797.3 lumens  
Efficiency: N/A  
Efficacy: 95.6 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

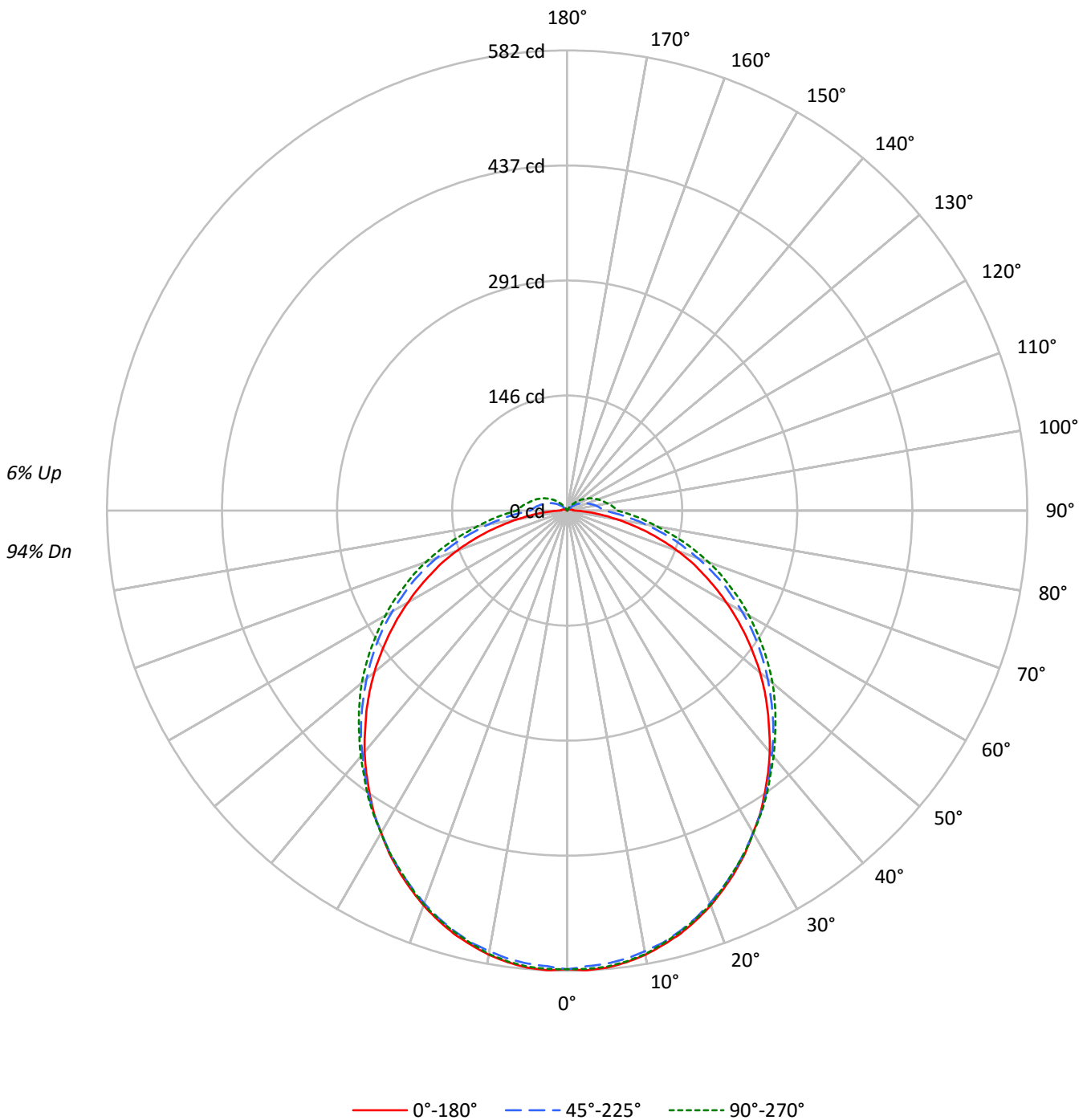
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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	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°	4124	4124	4124
5°	4132	4044	4055
10°	4102	3969	3960
15°	4053	3879	3840
20°	3987	3769	3721
25°	3909	3652	3574
30°	3813	3523	3442
35°	3724	3405	3319
40°	3634	3280	3196
45°	3531	3172	3087
50°	3434	3056	2989
55°	3317	2946	2874
60°	3188	2820	2757
65°	3054	2688	2625
70°	2902	2509	2490
75°	2662	2335	2323
80°	2346	2123	2140
85°	2049	1970	2064



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.9	3.1
10°-20°	155.9	8.7
20°-30°	231.8	12.9
30°-40°	274.5	15.3
40°-50°	283.8	15.8
50°-60°	261.4	14.5
60°-70°	211.3	11.8
70°-80°	141.4	7.9
80°-90°	73.1	4.1
90°-100°	41.2	2.3
100°-110°	30.3	1.7
110°-120°	20.3	1.1
120°-130°	11.5	0.6
130°-140°	5.0	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°	442.5	24.6
0°-40°	717.0	39.9
0°-60°	1262.1	70.2
0°-90°	1687.9	93.9
90°-120°	91.8	5.1
90°-150°	109.4	6.1
90°-180°	109.0	6.1
0°-180°	1797.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	580	580	580	580	580	
5°	580	579	575	580	579	55
15°	554	555	551	554	552	156
25°	503	505	502	504	501	232
35°	436	440	438	440	440	273
45°	359	365	368	372	373	277
55°	276	285	294	300	303	247
65°	190	203	217	225	228	189
75°	105	119	138	149	152	111
85°	31	50	70	82	87	33
90°	9	27	47	60	64	6
95°	7	22	42	54	58	6
105°	5	14	31	43	47	5
115°	3	7	22	32	36	3
125°	2	2	13	22	25	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



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	580.2	580.2	580.2	580.2	580.2
2.5°	581.9	580.8	576.8	580.8	580.2
5°	580.2	579.0	575.1	579.6	579.0
7.5°	576.2	575.6	571.7	575.6	575.1
10°	570.5	570.5	566.0	569.9	569.4
12.5°	562.6	563.1	559.7	562.6	560.8
15°	554.0	554.6	550.6	554.0	551.7
17.5°	543.2	544.3	540.4	543.2	541.5
20°	531.3	532.4	528.4	530.1	530.1
22.5°	517.6	519.9	515.3	517.6	515.9
25°	503.4	505.1	501.7	504.0	501.1
27.5°	488.0	490.3	486.3	488.0	486.9
30°	470.4	473.8	470.4	471.5	471.0
32.5°	454.5	457.3	455.0	456.2	455.6
35°	435.7	439.7	438.0	439.7	439.7
37.5°	417.5	420.9	420.3	422.6	422.1
40°	398.7	403.3	402.7	405.0	406.1
42.5°	378.3	384.5	386.2	389.1	389.1
45°	358.9	365.2	368.0	372.0	372.6
47.5°	339.0	344.7	349.2	354.9	356.1
50°	318.5	324.8	331.0	337.3	339.0
52.5°	296.9	304.9	312.8	319.7	320.8
55°	275.9	285.0	294.1	300.3	302.6
57.5°	254.3	265.1	275.3	282.1	283.8
60°	232.6	244.0	255.4	263.9	265.6
62.5°	211.6	223.0	235.5	245.2	247.4
65°	190.0	203.1	216.7	225.2	227.5
67.5°	170.1	182.6	196.2	206.5	209.3
70°	147.9	161.0	175.8	186.6	190.0
72.5°	126.3	139.9	156.4	168.4	170.6
75°	104.7	119.4	137.7	149.0	151.9
77.5°	83.6	100.7	117.7	130.3	132.5
80°	64.3	81.3	100.7	113.2	115.5
82.5°	46.6	64.8	84.8	96.7	101.2
85°	31.3	50.1	70.0	82.5	87.0
87.5°	19.9	38.1	57.4	70.5	74.5
90°	9.1	27.3	46.6	59.7	63.7
92.5°	8.0	24.5	44.4	56.9	60.9
95°	7.4	22.2	41.5	54.0	58.0
97.5°	6.8	20.5	39.2	51.2	55.2
100°	6.3	18.2	36.4	48.3	51.8
102.5°	5.7	16.5	34.1	45.5	48.9
105°	5.1	14.2	31.3	42.7	46.6
107.5°	4.6	12.5	29.0	40.4	43.8
110°	4.0	10.8	26.7	37.5	41.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.0	9.1	24.5	34.7	38.7
115°	3.4	7.4	22.2	32.4	35.8
117.5°	2.8	5.7	19.9	29.6	33.6
120°	2.8	4.6	17.6	27.3	30.7
122.5°	2.3	2.8	15.4	24.5	27.9
125°	2.3	1.7	13.1	22.2	25.0
127.5°	1.7	1.1	10.8	19.3	22.8
130°	1.7	1.1	9.1	17.1	19.9
132.5°	1.1	1.1	6.8	14.8	17.1
135°	1.1	0.6	4.6	11.9	14.8
137.5°	1.1	0.6	2.8	9.7	11.9
140°	0.6	0.6	1.1	7.4	9.7
142.5°	0.6	0.0	0.0	5.1	7.4
145°	0.6	0.0	0.0	2.8	5.1
147.5°	0.0	0.0	0.0	1.1	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)