

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P242870

Luminaire Tested: S125RDRP-S610D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242870  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S610D927-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

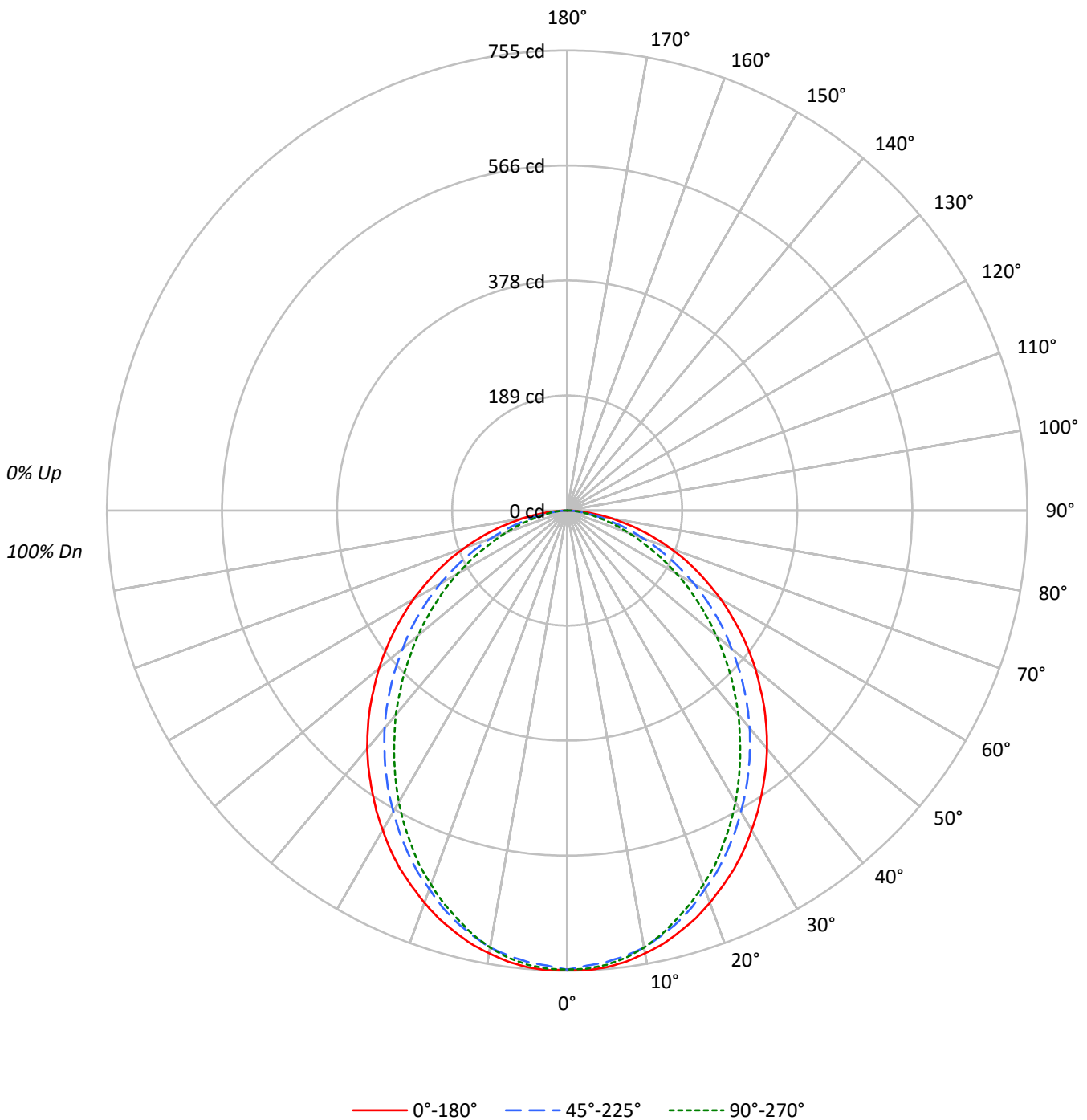
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1779.3 lumens  
Efficiency: N/A  
Efficacy: 94.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
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: 24 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	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	99	96	93	95	92	90	91	89	87					85				
2	100	92	86	80	98	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	64	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	44	55	48	43	53	47	43					41				
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38					36				
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34					33				
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31					29				
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29					27				

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

	0°	45°	90°
0°	5353	5353	5353
5°	5365	5304	5337
10°	5324	5255	5255
15°	5261	5148	5106
20°	5179	4999	4939
25°	5085	4853	4746
30°	4967	4682	4533
35°	4847	4506	4294
40°	4734	4323	4058
45°	4596	4116	3802
50°	4459	3893	3535
55°	4300	3679	3249
60°	4139	3420	2942
65°	3950	3118	2592
70°	3734	2743	2234
75°	3435	2312	1859
80°	3025	1817	1559
85°	2552	1484	1394

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4596 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.9	4.0
10°-20°	198.1	11.1
20°-30°	287.2	16.1
30°-40°	327.2	18.4
40°-50°	318.9	17.9
50°-60°	268.4	15.1
60°-70°	188.1	10.6
70°-80°	96.4	5.4
80°-90°	24.0	1.4
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°	556.2	31.3
0°-40°	883.4	49.6
0°-60°	1470.7	82.7
0°-90°	1779.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1779.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	753	753	753	753	753	
5°	752	750	743	749	748	71
15°	715	712	700	699	694	202
25°	648	640	619	612	605	298
35°	559	545	519	503	495	350
45°	457	441	410	387	378	353
55°	347	329	297	271	262	310
65°	235	216	185	163	154	233
75°	125	108	84	72	68	132
85°	31	21	18	18	17	36
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	753.1	753.1	753.1	753.1	753.1
2.5°	754.8	753.1	747.4	753.1	752.5
5°	752.0	749.7	743.4	749.1	748.0
7.5°	746.3	744.0	736.6	741.2	740.0
10°	737.7	736.0	728.1	729.8	728.1
12.5°	728.1	725.8	714.4	715.6	712.7
15°	715.0	711.6	699.6	699.1	693.9
17.5°	701.3	696.2	682.0	679.2	675.2
20°	684.8	679.2	661.0	658.1	653.0
22.5°	666.6	661.0	641.6	635.4	631.4
25°	648.4	639.9	618.9	611.5	605.2
27.5°	628.0	617.7	595.5	585.9	579.6
30°	605.2	594.4	570.5	557.4	552.3
32.5°	583.0	569.9	545.5	530.7	523.9
35°	558.6	544.9	519.3	502.8	494.9
37.5°	535.2	518.8	492.6	473.2	465.3
40°	510.2	493.2	465.9	444.2	437.4
42.5°	484.1	466.4	438.0	417.5	406.7
45°	457.3	440.8	409.5	386.8	378.3
47.5°	429.4	412.4	381.1	357.8	348.1
50°	403.3	384.5	352.1	328.2	319.7
52.5°	374.8	355.5	325.4	299.2	290.7
55°	347.0	328.8	296.9	271.3	262.2
57.5°	318.5	299.2	268.5	243.4	235.5
60°	291.2	271.3	240.6	215.6	207.0
62.5°	262.2	243.4	212.2	189.4	180.9
65°	234.9	215.6	185.4	162.7	154.1
67.5°	207.6	188.3	159.3	137.7	130.8
70°	179.7	160.4	132.0	114.3	107.5
72.5°	152.4	133.7	107.5	91.6	87.6
75°	125.1	108.1	84.2	71.7	67.7
77.5°	97.3	83.6	63.7	54.0	50.6
80°	73.9	60.3	44.4	39.2	38.1
82.5°	51.2	39.2	29.6	27.9	27.3
85°	31.3	21.0	18.2	17.6	17.1
87.5°	13.1	9.1	8.5	8.5	8.0
90°	0.0	0.0	0.0	0.0	0.0

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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.17	18.74	17.53	19.06	19.37	15.60	17.18	15.96	17.49	17.80
	3H	18.95	20.37	19.33	20.70	21.06	16.91	18.33	17.29	18.66	19.02
	4H	19.61	20.95	20.01	21.30	21.67	17.32	18.66	17.72	19.01	19.38
	6H	20.08	21.32	20.49	21.68	22.07	17.58	18.81	17.99	19.18	19.57
	8H	20.23	21.41	20.66	21.80	22.20	17.66	18.84	18.09	19.23	19.63
	12H	20.33	21.46	20.76	21.84	22.27	17.72	18.84	18.15	19.22	19.65
4H	2H	17.56	18.89	17.96	19.24	19.62	16.29	17.62	16.69	17.97	18.34
	3H	19.54	20.65	19.95	21.05	21.45	17.79	18.90	18.20	19.30	19.70
	4H	20.33	21.33	20.76	21.74	22.18	18.28	19.28	18.72	19.70	20.14
	6H	20.92	21.79	21.38	22.23	22.69	18.63	19.50	19.08	19.94	20.40
	8H	21.11	21.93	21.57	22.37	22.84	18.74	19.55	19.20	20.00	20.46
	12H	21.25	21.98	21.73	22.46	22.93	18.82	19.55	19.30	20.03	20.50
8H	4H	20.45	21.27	20.91	21.71	22.18	18.60	19.41	19.06	19.86	20.32
	6H	21.13	21.80	21.62	22.29	22.77	19.02	19.70	19.52	20.19	20.66
	8H	21.37	21.98	21.88	22.49	22.97	19.18	19.79	19.69	20.29	20.78
	12H	21.57	22.10	22.08	22.60	23.16	19.32	19.86	19.83	20.35	20.91
12H	4H	20.44	21.17	20.93	21.65	22.12	18.64	19.37	19.12	19.84	20.31
	6H	21.12	21.73	21.63	22.24	22.72	19.07	19.68	19.58	20.19	20.67
	8H	21.41	21.94	21.92	22.43	23.00	19.28	19.81	19.79	20.31	20.87