

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: P242894

Luminaire Tested: S125RDRP-S610D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242894  
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-S610D935-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

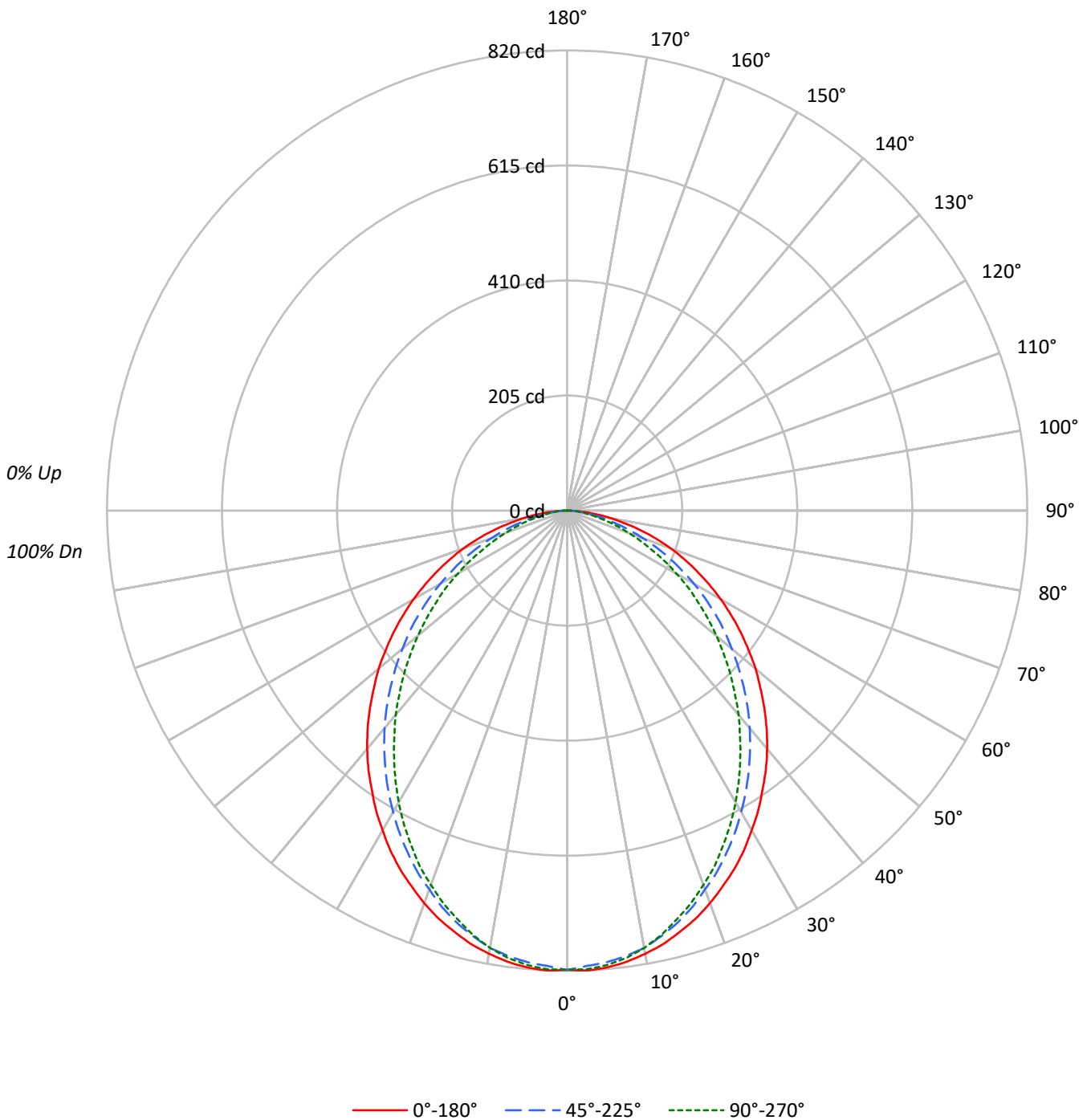
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1933.9 lumens  
Efficiency: N/A  
Efficacy: 102.9 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	5817	5817	5817
5°	5831	5765	5800
10°	5787	5711	5711
15°	5718	5595	5549
20°	5629	5434	5368
25°	5527	5275	5159
30°	5398	5089	4927
35°	5267	4897	4667
40°	5145	4697	4411
45°	4995	4474	4132
50°	4846	4232	3841
55°	4673	3999	3532
60°	4499	3717	3198
65°	4293	3389	2817
70°	4061	2980	2427
75°	3735	2513	2021
80°	3291	1973	1694
85°	2773	1615	1509

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4995 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.0	4.0
10°-20°	215.3	11.1
20°-30°	312.2	16.1
30°-40°	355.6	18.4
40°-50°	346.6	17.9
50°-60°	291.7	15.1
60°-70°	204.4	10.6
70°-80°	104.8	5.4
80°-90°	26.1	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°	604.5	31.3
0°-40°	960.1	49.6
0°-60°	1598.5	82.7
0°-90°	1933.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1933.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	817	815	808	814	813	78
15°	777	773	760	760	754	219
25°	705	696	673	665	658	324
35°	607	592	564	546	538	380
45°	497	479	445	420	411	383
55°	377	357	323	295	285	337
65°	255	234	202	177	168	253
75°	136	118	92	78	74	144
85°	34	23	20	19	18	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	818.5	818.5	818.5	818.5	818.5
2.5°	820.4	818.5	812.3	818.5	817.9
5°	817.3	814.8	808.0	814.2	813.0
7.5°	811.1	808.6	800.6	805.5	804.3
10°	801.8	800.0	791.3	793.2	791.3
12.5°	791.3	788.8	776.5	777.7	774.6
15°	777.1	773.4	760.4	759.8	754.2
17.5°	762.3	756.7	741.2	738.2	733.8
20°	744.3	738.2	718.4	715.3	709.7
22.5°	724.6	718.4	697.4	690.6	686.2
25°	704.8	695.5	672.6	664.6	657.8
27.5°	682.5	671.4	647.3	636.8	630.0
30°	657.8	646.0	620.1	605.9	600.3
32.5°	633.7	619.5	592.9	576.8	569.4
35°	607.1	592.3	564.4	546.5	537.9
37.5°	581.7	563.8	535.4	514.4	505.7
40°	554.5	536.0	506.3	482.8	475.4
42.5°	526.1	506.9	476.0	453.8	442.0
45°	497.0	479.1	445.1	420.4	411.1
47.5°	466.8	448.2	414.2	388.9	378.4
50°	438.3	417.9	382.7	356.7	347.4
52.5°	407.4	386.4	353.6	325.2	315.9
55°	377.1	357.3	322.7	294.9	285.0
57.5°	346.2	325.2	291.8	264.6	255.9
60°	316.5	294.9	261.5	234.3	225.0
62.5°	285.0	264.6	230.6	205.9	196.6
65°	255.3	234.3	201.5	176.8	167.5
67.5°	225.7	204.6	173.1	149.6	142.2
70°	195.4	174.3	143.4	124.3	116.8
72.5°	165.7	145.3	116.8	99.5	95.2
75°	136.0	117.5	91.5	77.9	73.6
77.5°	105.7	90.9	69.2	58.7	55.0
80°	80.4	65.5	48.2	42.7	41.4
82.5°	55.6	42.7	32.1	30.3	29.7
85°	34.0	22.9	19.8	19.2	18.5
87.5°	14.2	9.9	9.3	9.3	8.7
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	17.46	19.03	17.82	19.35	19.66	15.89	17.47	16.25	17.78	18.09
	3H	19.24	20.66	19.62	20.99	21.35	17.20	18.62	17.58	18.95	19.31
	4H	19.90	21.24	20.30	21.59	21.96	17.61	18.95	18.01	19.29	19.67
	6H	20.37	21.61	20.78	21.97	22.36	17.87	19.10	18.28	19.47	19.86
	8H	20.52	21.70	20.95	22.09	22.49	17.95	19.13	18.38	19.52	19.92
	12H	20.62	21.75	21.05	22.13	22.56	18.01	19.13	18.44	19.51	19.94
4H	2H	17.85	19.18	18.25	19.53	19.91	16.58	17.91	16.98	18.26	18.63
	3H	19.83	20.94	20.24	21.34	21.74	18.08	19.19	18.49	19.59	19.99
	4H	20.62	21.62	21.05	22.03	22.47	18.57	19.57	19.00	19.99	20.43
	6H	21.21	22.08	21.66	22.52	22.98	18.92	19.79	19.37	20.23	20.69
	8H	21.40	22.22	21.86	22.66	23.13	19.03	19.84	19.49	20.29	20.75
	12H	21.54	22.27	22.02	22.75	23.22	19.11	19.84	19.59	20.32	20.79
8H	4H	20.74	21.56	21.20	22.00	22.47	18.89	19.70	19.35	20.15	20.61
	6H	21.42	22.09	21.91	22.58	23.06	19.31	19.99	19.81	20.48	20.95
	8H	21.66	22.27	22.17	22.78	23.26	19.47	20.08	19.98	20.58	21.07
	12H	21.86	22.39	22.37	22.89	23.45	19.61	20.15	20.12	20.64	21.20
12H	4H	20.73	21.46	21.21	21.94	22.41	18.92	19.65	19.41	20.13	20.60
	6H	21.41	22.02	21.92	22.53	23.01	19.36	19.97	19.87	20.48	20.96
	8H	21.70	22.23	22.21	22.72	23.29	19.57	20.10	20.08	20.60	21.16