

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: P1059137

Luminaire Tested: S123RDRP-S1165D930-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059137  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1165D930-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

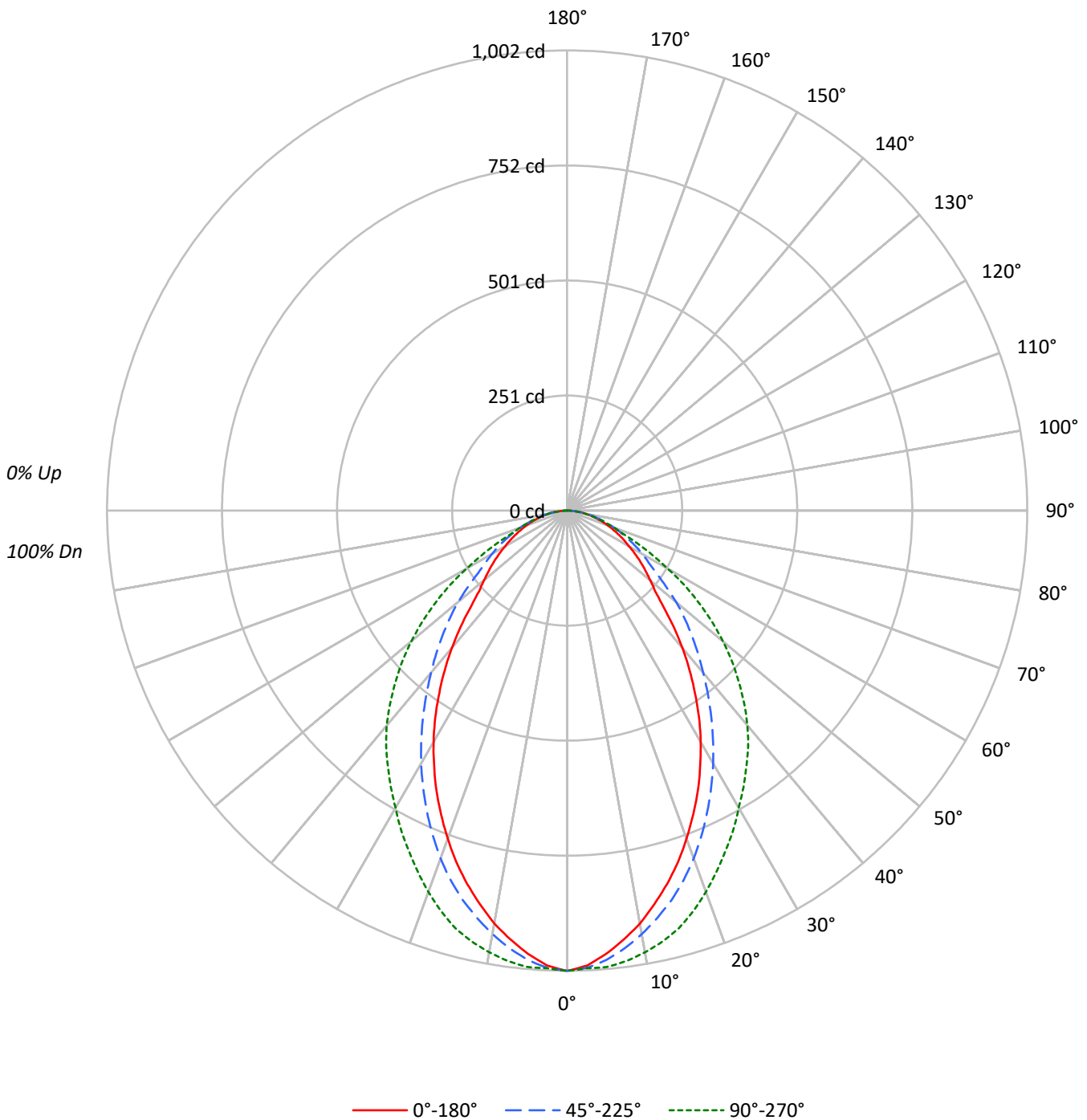
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1810.6 lumens  
Efficiency: N/A  
Efficacy: 43.3 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89					87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77					75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67					65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59					57				
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	53					51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43					41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39					37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35					34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33					31				

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

	0°	45°	90°
0°	11769	11769	11769
5°	11427	11579	11759
10°	10886	11166	11643
15°	10227	10671	11442
20°	9501	10073	11042
25°	8724	9364	10581
30°	7887	8619	10133
35°	6957	7833	9753
40°	5980	7060	9366
45°	4917	6362	8781
50°	4315	5667	8093
55°	3994	4836	7169
60°	3671	4443	5932
65°	3429	4082	4668
70°	3227	3711	3711
75°	3040	3412	3199
80°	2860	3097	2705
85°	2695	3004	2061

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8781 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.7	5.1
10°-20°	248.5	13.7
20°-30°	336.9	18.6
30°-40°	352.2	19.5
40°-50°	305.5	16.9
50°-60°	227.2	12.6
60°-70°	145.8	8.1
70°-80°	78.2	4.3
80°-90°	23.6	1.3
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°	678.0	37.4
0°-40°	1030.2	56.9
0°-60°	1562.9	86.3
0°-90°	1810.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1810.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1002	1002	1002	1002	1002	
5°	969	986	982	989	998	91
15°	841	861	878	913	941	236
25°	673	694	723	771	817	309
35°	485	509	546	616	680	303
45°	296	318	383	465	529	233
55°	195	200	236	303	350	175
65°	123	134	147	156	168	123
75°	67	78	75	72	70	71
85°	20	25	22	19	15	23
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1002.3	1002.3	1002.3	1002.3	1002.3
2.5°	991.7	1005.8	996.4	996.4	997.6
5°	969.4	985.9	982.3	989.4	997.6
7.5°	942.4	960.0	961.2	977.6	989.4
10°	913.0	930.6	936.5	960.0	976.5
12.5°	877.8	897.7	908.3	937.7	961.2
15°	841.3	861.3	877.8	913.0	941.2
17.5°	802.6	822.5	843.7	883.6	914.2
20°	760.3	781.4	806.1	846.0	883.6
22.5°	716.8	739.1	765.0	808.4	850.7
25°	673.3	694.5	722.7	770.8	816.7
27.5°	627.5	649.8	679.2	732.1	783.8
30°	581.7	604.0	635.7	692.1	747.3
32.5°	534.6	557.0	591.1	654.5	714.4
35°	485.3	508.8	546.4	615.7	680.4
37.5°	438.3	460.6	502.9	579.3	647.5
40°	390.1	413.6	460.6	542.9	611.0
42.5°	343.1	366.6	421.8	504.1	571.1
45°	296.1	318.4	383.1	465.3	528.8
47.5°	259.7	276.1	346.6	424.2	487.6
50°	236.2	242.1	310.2	384.2	443.0
52.5°	215.0	219.7	270.3	344.3	397.2
55°	195.1	199.8	236.2	303.2	350.2
57.5°	175.1	181.0	210.3	260.9	303.2
60°	156.3	163.3	189.2	223.3	252.6
62.5°	139.8	148.1	168.0	189.2	209.2
65°	123.4	134.0	146.9	156.3	168.0
67.5°	108.1	119.9	126.9	129.3	130.4
70°	94.0	105.8	108.1	108.1	108.1
72.5°	79.9	92.8	90.5	89.3	88.1
75°	67.0	77.6	75.2	71.7	70.5
77.5°	54.1	63.5	59.9	57.6	54.1
80°	42.3	49.4	45.8	43.5	40.0
82.5°	31.7	36.4	32.9	30.6	27.0
85°	20.0	24.7	22.3	18.8	15.3
87.5°	10.6	14.1	11.8	10.6	5.9
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	15.35	16.84	15.72	17.15	17.46	18.11	19.59	18.47	19.91	20.22
	3H	17.06	18.39	17.44	18.72	19.08	19.13	20.46	19.51	20.79	21.15
	4H	17.72	18.97	18.12	19.32	19.70	19.49	20.74	19.90	21.09	21.47
	6H	18.22	19.37	18.64	19.74	20.13	19.75	20.90	20.16	21.27	21.66
	8H	18.40	19.50	18.83	19.89	20.29	19.82	20.91	20.25	21.30	21.71
	12H	18.53	19.58	18.96	19.96	20.39	19.86	20.90	20.29	21.29	21.72
4H	2H	16.13	17.37	16.53	17.72	18.10	18.38	19.63	18.78	19.97	20.35
	3H	18.05	19.09	18.47	19.49	19.89	19.63	20.67	20.05	21.07	21.47
	4H	18.86	19.79	19.30	20.21	20.65	20.12	21.05	20.55	21.47	21.91
	6H	19.51	20.31	19.96	20.76	21.22	20.50	21.31	20.96	21.75	22.21
	8H	19.73	20.49	20.20	20.93	21.40	20.61	21.37	21.08	21.81	22.28
	12H	19.91	20.58	20.39	21.06	21.53	20.68	21.36	21.17	21.84	22.31
8H	4H	19.18	19.94	19.65	20.38	20.85	20.31	21.07	20.78	21.51	21.98
	6H	19.98	20.60	20.48	21.09	21.57	20.80	21.42	21.30	21.92	22.39
	8H	20.30	20.86	20.82	21.38	21.86	20.98	21.54	21.49	22.05	22.54
	12H	20.58	21.08	21.09	21.57	22.14	21.11	21.61	21.62	22.10	22.66
12H	4H	19.21	19.88	19.69	20.36	20.83	20.33	21.00	20.81	21.48	21.95
	6H	20.03	20.59	20.55	21.10	21.59	20.84	21.40	21.35	21.91	22.40
	8H	20.42	20.92	20.94	21.41	21.98	21.07	21.56	21.58	22.06	22.62