

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: P1059124

Luminaire Tested: S123RDRP-S1165D927-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059124  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1165D927-X4F0-XX-UDD-SVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

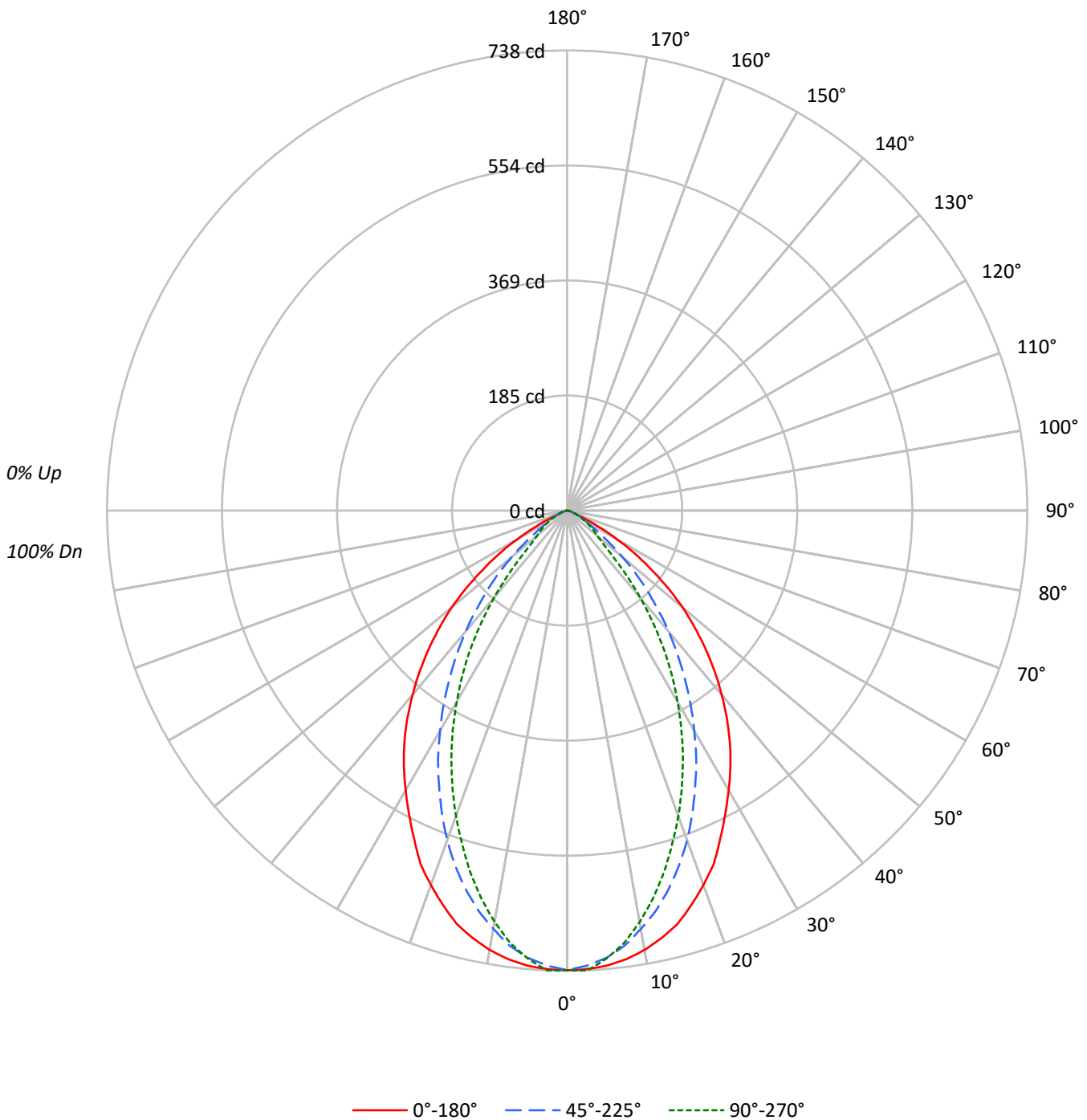
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 951.6 lumens  
Efficiency: N/A  
Efficacy: 22.8 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	8655	8655	8655
5°	8635	8487	8501
10°	8530	8122	7986
15°	8337	7643	7296
20°	7985	7029	6517
25°	7525	6298	5692
30°	7024	5524	4796
35°	6527	4710	3860
40°	5912	3883	2799
45°	5211	3012	1687
50°	4419	2104	1147
55°	3364	1261	958
60°	2198	803	749
65°	920	603	603
70°	312	433	470
75°	259	309	363
80°	156	230	311
85°	148	148	310

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5211 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.1	7.2
10°-20°	178.2	18.7
20°-30°	228.5	24.0
30°-40°	214.4	22.5
40°-50°	149.6	15.7
50°-60°	77.3	8.1
60°-70°	26.4	2.8
70°-80°	7.6	0.8
80°-90°	1.6	0.2
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°	474.7	49.9
0°-40°	689.1	72.4
0°-60°	916.0	96.3
0°-90°	951.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	951.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	737	737	737	737	737	
5°	733	731	720	723	721	69
15°	686	669	629	608	600	192
25°	581	544	486	453	439	267
35°	455	399	329	286	269	283
45°	314	257	181	126	102	241
55°	164	123	62	48	47	148
65°	33	28	22	20	22	39
75°	6	6	7	8	8	6
85°	1	1	1	1	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	737.1	737.1	737.1	737.1	737.1
2.5°	736.0	737.1	730.3	737.1	738.3
5°	732.6	731.4	720.0	723.4	721.2
7.5°	725.7	722.3	704.0	699.5	699.5
10°	715.4	708.6	681.2	673.2	669.8
12.5°	701.8	692.6	657.3	642.4	636.7
15°	685.8	668.7	628.7	608.2	600.2
17.5°	663.0	640.1	596.8	572.8	560.3
20°	639.0	610.5	562.5	534.0	521.5
22.5°	613.9	579.7	524.9	494.1	480.4
25°	580.8	544.3	486.1	453.0	439.3
27.5°	548.9	510.1	448.4	410.8	397.1
30°	518.0	472.4	407.4	370.8	353.7
32.5°	487.2	435.9	368.6	328.6	312.7
35°	455.3	399.4	328.6	286.4	269.3
37.5°	421.1	364.0	291.0	245.3	224.8
40°	385.7	326.3	253.3	202.0	182.6
42.5°	350.3	292.1	215.7	163.2	140.4
45°	313.8	256.7	181.4	125.5	101.6
47.5°	277.3	221.4	148.3	91.3	76.5
50°	241.9	188.3	115.2	67.3	62.8
52.5°	203.1	156.3	86.7	55.9	54.8
55°	164.3	123.2	61.6	47.9	46.8
57.5°	130.1	95.8	44.5	39.9	38.8
60°	93.6	68.5	34.2	33.1	31.9
62.5°	61.6	46.8	27.4	26.2	26.2
65°	33.1	28.5	21.7	20.5	21.7
67.5°	13.7	16.0	16.0	17.1	17.1
70°	9.1	10.3	12.6	13.7	13.7
72.5°	6.8	8.0	9.1	10.3	10.3
75°	5.7	5.7	6.8	8.0	8.0
77.5°	3.4	4.6	4.6	5.7	6.8
80°	2.3	3.4	3.4	4.6	4.6
82.5°	1.1	2.3	2.3	3.4	3.4
85°	1.1	1.1	1.1	1.1	2.3
87.5°	0.0	0.0	0.0	0.0	1.1
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	13.83	15.09	14.19	15.40	15.72	7.33	8.59	7.70	8.90	9.22
	3H	13.78	14.89	14.16	15.22	15.59	8.11	9.22	8.49	9.55	9.91
	4H	13.73	14.76	14.13	15.11	15.50	8.31	9.34	8.71	9.69	10.08
	6H	13.66	14.60	14.07	14.97	15.37	8.45	9.40	8.87	9.77	10.16
	8H	13.62	14.51	14.05	14.90	15.31	8.49	9.38	8.92	9.77	10.18
	12H	13.57	14.42	14.01	14.81	15.24	8.51	9.36	8.94	9.74	10.17
4H	2H	13.68	14.71	14.08	15.06	15.44	7.59	8.62	7.99	8.97	9.36
	3H	13.66	14.50	14.08	14.90	15.31	8.50	9.33	8.91	9.74	10.14
	4H	13.61	14.35	14.05	14.77	15.22	8.77	9.52	9.21	9.94	10.38
	6H	13.55	14.19	14.02	14.64	15.11	8.99	9.63	9.45	10.07	10.54
	8H	13.50	14.09	13.97	14.54	15.01	9.05	9.64	9.52	10.09	10.57
	12H	13.45	13.98	13.94	14.46	14.94	9.09	9.61	9.58	10.10	10.57
8H	4H	13.50	14.09	13.97	14.54	15.01	8.76	9.35	9.23	9.80	10.27
	6H	13.43	13.92	13.94	14.42	14.90	9.03	9.51	9.53	10.01	10.49
	8H	13.38	13.82	13.91	14.33	14.83	9.13	9.57	9.66	10.08	10.58
	12H	13.34	13.73	13.86	14.23	14.80	9.20	9.59	9.72	10.08	10.66
12H	4H	13.45	13.97	13.94	14.46	14.93	8.72	9.24	9.21	9.73	10.20
	6H	13.38	13.81	13.90	14.33	14.82	8.99	9.42	9.51	9.94	10.43
	8H	13.35	13.73	13.86	14.23	14.80	9.12	9.51	9.64	10.01	10.58