

Scaled data based on original data using  
LM-79-2019 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: S123RDR-S1165D927-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
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: S123RDR-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: -

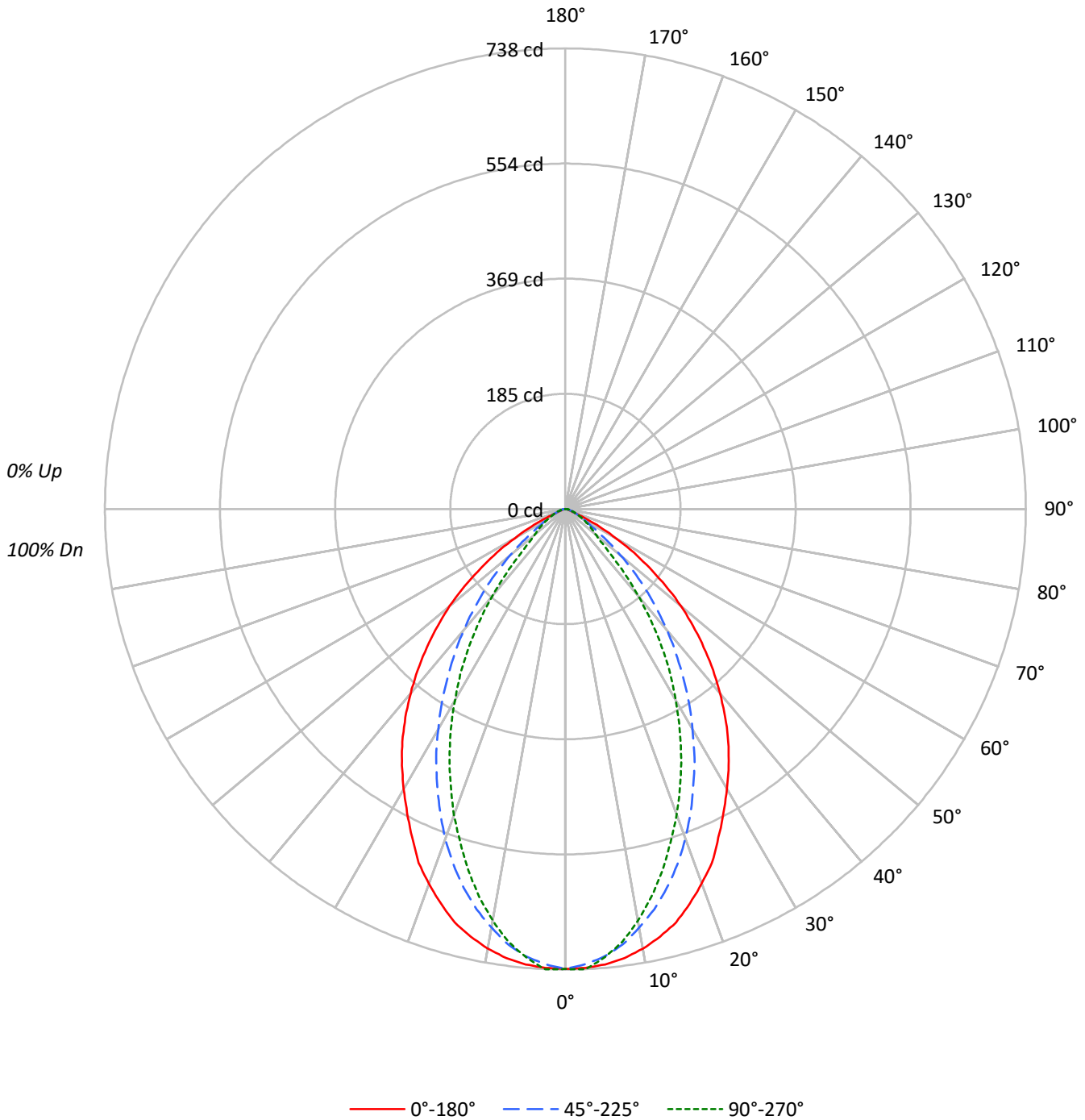
**Summary**

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

(END OF REPORT)