

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: P1059106

Luminaire Tested: S123RDR-S1165D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059106  
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-S1165D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

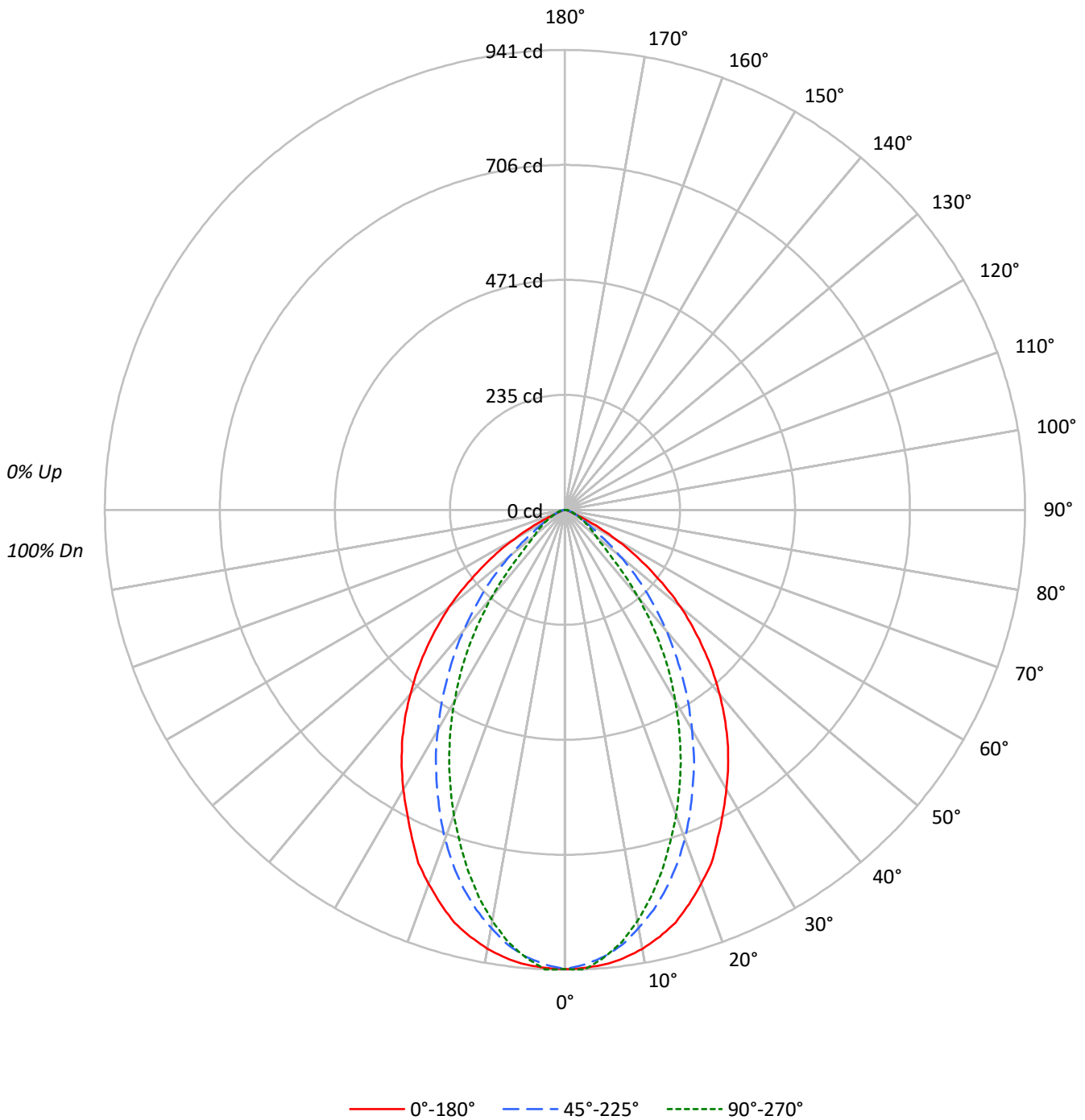
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1213.1 lumens  
Efficiency: N/A  
Efficacy: 29.0 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	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	70	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	48	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°	11034	11034	11034
5°	11008	10820	10836
10°	10874	10354	10182
15°	10627	9744	9301
20°	10179	8961	8307
25°	9593	8029	7256
30°	8954	7041	6114
35°	8320	6005	4921
40°	7537	4950	3567
45°	6643	3841	2151
50°	5634	2684	1461
55°	4289	1607	1220
60°	2802	1024	956
65°	1173	767	767
70°	398	549	601
75°	331	395	463
80°	196	298	392
85°	202	202	391

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6643 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.8	7.2
10°-20°	227.1	18.7
20°-30°	291.3	24.0
30°-40°	273.3	22.5
40°-50°	190.7	15.7
50°-60°	98.6	8.1
60°-70°	33.7	2.8
70°-80°	9.6	0.8
80°-90°	2.0	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°	605.2	49.9
0°-40°	878.5	72.4
0°-60°	1167.7	96.3
0°-90°	1213.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1213.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	934	932	918	922	919	88
15°	874	852	802	775	765	245
25°	740	694	620	578	560	340
35°	580	509	419	365	343	361
45°	400	327	231	160	130	308
55°	210	157	78	61	60	189
65°	42	36	28	26	28	50
75°	7	7	9	10	10	7
85°	2	2	2	2	3	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	939.7	939.7	939.7	939.7	939.7
2.5°	938.2	939.7	931.0	939.7	941.1
5°	933.9	932.4	917.9	922.2	919.3
7.5°	925.1	920.8	897.5	891.7	891.7
10°	912.0	903.3	868.4	858.2	853.9
12.5°	894.6	883.0	837.9	818.9	811.7
15°	874.2	852.4	801.5	775.3	765.1
17.5°	845.1	816.0	760.8	730.2	714.2
20°	814.6	778.2	717.1	680.8	664.8
22.5°	782.6	738.9	669.1	629.8	612.4
25°	740.4	693.9	619.7	577.5	560.0
27.5°	699.7	650.2	571.7	523.7	506.2
30°	660.4	602.2	519.3	472.7	450.9
32.5°	621.1	555.7	469.8	418.9	398.6
35°	580.4	509.1	418.9	365.1	343.3
37.5°	536.8	464.0	370.9	312.7	286.6
40°	491.7	416.0	322.9	257.5	232.7
42.5°	446.6	372.4	274.9	208.0	178.9
45°	400.0	327.3	231.3	160.0	129.5
47.5°	353.5	282.2	189.1	116.4	97.5
50°	308.4	240.0	146.9	85.8	80.0
52.5°	258.9	199.3	110.6	71.3	69.8
55°	209.5	157.1	78.5	61.1	59.6
57.5°	165.8	122.2	56.7	50.9	49.5
60°	119.3	87.3	43.6	42.2	40.7
62.5°	78.5	59.6	34.9	33.5	33.5
65°	42.2	36.4	27.6	26.2	27.6
67.5°	17.5	20.4	20.4	21.8	21.8
70°	11.6	13.1	16.0	17.5	17.5
72.5°	8.7	10.2	11.6	13.1	13.1
75°	7.3	7.3	8.7	10.2	10.2
77.5°	4.4	5.8	5.8	7.3	8.7
80°	2.9	4.4	4.4	5.8	5.8
82.5°	1.5	2.9	2.9	4.4	4.4
85°	1.5	1.5	1.5	1.5	2.9
87.5°	0.0	0.0	0.0	0.0	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)