

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: P1059121

Luminaire Tested: S123RDR-S1165D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059121  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1165D927-X4F0-XX-UDD-BVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

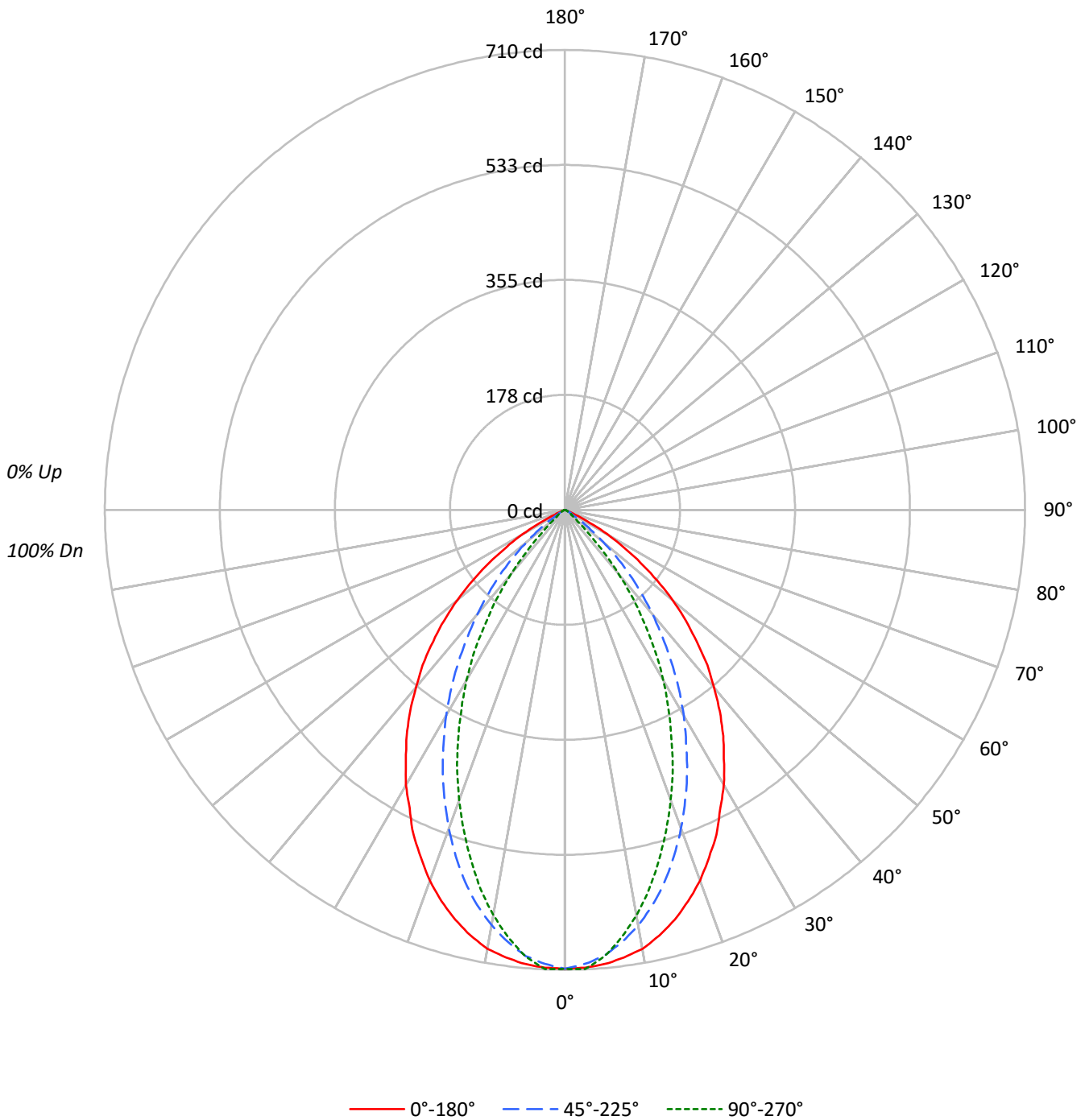
Lumens per Lamp: N/A  
Luminaire Lumens: 808.5 lumens  
Efficiency: N/A  
Efficacy: 19.3 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

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

	0°	45°	90°
0°	8320	8320	8320
5°	8298	8150	8164
10°	8203	7768	7577
15°	7961	7226	6810
20°	7614	6544	5959
25°	7170	5780	5041
30°	6652	4967	4115
35°	6101	4106	3059
40°	5474	3217	1959
45°	4774	2350	815
50°	3960	1396	312
55°	2919	583	233
60°	1768	214	134
65°	475	128	64
70°	0	38	38
75°	0	0	50
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4774 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.2	8.1
10°-20°	168.3	20.8
20°-30°	209.8	25.9
30°-40°	187.6	23.2
40°-50°	118.4	14.6
50°-60°	49.5	6.1
60°-70°	9.3	1.2
70°-80°	0.3	0.0
80°-90°	0.0	0.0
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°	443.4	54.8
0°-40°	631.0	78.0
0°-60°	798.9	98.8
0°-90°	808.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	808.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	704	703	691	694	693	67
15°	655	639	594	569	560	184
25°	553	509	446	407	389	253
35°	426	364	286	235	213	265
45°	288	224	142	75	49	222
55°	143	98	28	11	11	128
65°	17	13	5	2	2	24
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	708.5	708.5	708.5	708.5	708.5
2.5°	707.4	708.5	701.7	708.5	709.7
5°	704.0	702.8	691.4	693.7	692.6
7.5°	697.1	693.7	673.2	668.6	666.3
10°	688.0	678.9	651.5	640.1	635.5
12.5°	673.2	660.6	625.3	607.0	600.2
15°	654.9	638.9	594.4	569.3	560.2
17.5°	633.2	610.4	560.2	532.8	519.1
20°	609.3	577.3	523.7	490.6	476.9
22.5°	580.8	545.4	484.9	449.5	434.7
25°	553.4	508.9	446.1	407.3	389.1
27.5°	519.1	472.4	405.0	365.1	345.7
30°	490.6	437.0	366.3	321.8	303.5
32.5°	456.4	400.5	326.3	277.3	260.1
35°	425.6	364.0	286.4	235.0	213.4
37.5°	392.5	328.6	246.5	192.8	172.3
40°	357.1	293.2	209.9	150.6	127.8
42.5°	325.2	257.9	173.4	111.8	89.0
45°	287.5	223.6	141.5	75.3	49.1
47.5°	253.3	191.7	107.3	42.2	26.2
50°	216.8	158.6	76.4	21.7	17.1
52.5°	179.1	126.6	50.2	14.8	13.7
55°	142.6	98.1	28.5	11.4	11.4
57.5°	107.3	70.7	14.8	9.1	8.0
60°	75.3	46.8	9.1	6.8	5.7
62.5°	43.4	27.4	6.8	4.6	4.6
65°	17.1	12.6	4.6	2.3	2.3
67.5°	1.1	3.4	2.3	1.1	1.1
70°	0.0	0.0	1.1	1.1	1.1
72.5°	0.0	0.0	1.1	1.1	1.1
75°	0.0	0.0	0.0	0.0	1.1
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)