

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: P1059085

Luminaire Tested: S123RDR-S1165D830-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059085  
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-S1165D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

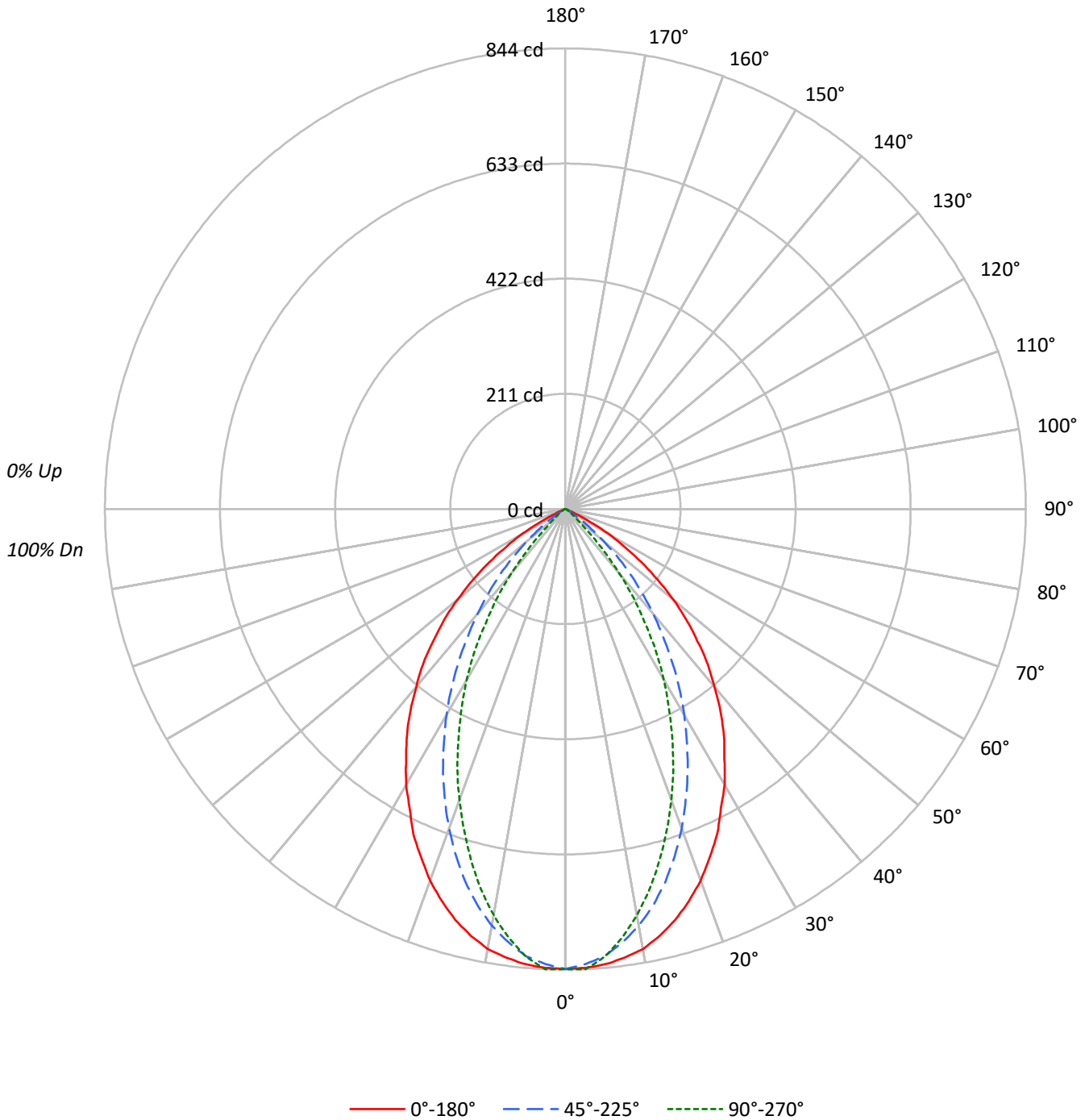
Lumens per Lamp: N/A  
Luminaire Lumens: 962.0 lumens  
Efficiency: N/A  
Efficacy: 23.0 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

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°	9899	9899	9899
5°	9873	9697	9713
10°	9761	9243	9015
15°	9472	8598	8104
20°	9058	7786	7092
25°	8530	6877	5997
30°	7914	5909	4896
35°	7259	4884	3640
40°	6513	3829	2330
45°	5681	2795	970
50°	4711	1662	373
55°	3474	694	278
60°	2104	256	160
65°	567	150	75
70°	0	48	48
75°	0	0	64
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5681 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.6	8.1
10°-20°	200.3	20.8
20°-30°	249.6	25.9
30°-40°	223.2	23.2
40°-50°	140.9	14.6
50°-60°	58.9	6.1
60°-70°	11.1	1.2
70°-80°	0.4	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°	527.5	54.8
0°-40°	750.7	78.0
0°-60°	950.5	98.8
0°-90°	962.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	962.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	843	843	843	843	843	
5°	838	836	823	825	824	79
15°	779	760	707	677	667	219
25°	658	606	531	485	463	301
35°	506	433	341	280	254	315
45°	342	266	168	90	58	264
55°	170	117	34	14	14	152
65°	20	15	5	3	3	29
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°	843.0	843.0	843.0	843.0	843.0
2.5°	841.7	843.0	834.9	843.0	844.4
5°	837.6	836.2	822.7	825.4	824.0
7.5°	829.5	825.4	800.9	795.5	792.8
10°	818.6	807.7	775.2	761.6	756.1
12.5°	800.9	786.0	743.9	722.2	714.1
15°	779.2	760.2	707.3	677.4	666.6
17.5°	753.4	726.3	666.6	634.0	617.7
20°	724.9	686.9	623.1	583.7	567.5
22.5°	691.0	648.9	577.0	534.9	517.2
25°	658.4	605.5	530.8	484.6	462.9
27.5°	617.7	562.0	481.9	434.4	411.3
30°	583.7	519.9	435.8	382.8	361.1
32.5°	543.0	476.5	388.3	329.9	309.5
35°	506.4	433.1	340.7	279.7	253.9
37.5°	467.0	391.0	293.2	229.4	205.0
40°	424.9	348.9	249.8	179.2	152.0
42.5°	386.9	306.8	206.3	133.0	105.9
45°	342.1	266.1	168.3	89.6	58.4
47.5°	301.4	228.1	127.6	50.2	31.2
50°	257.9	188.7	91.0	25.8	20.4
52.5°	213.1	150.7	59.7	17.6	16.3
55°	169.7	116.7	33.9	13.6	13.6
57.5°	127.6	84.2	17.6	10.9	9.5
60°	89.6	55.7	10.9	8.1	6.8
62.5°	51.6	32.6	8.1	5.4	5.4
65°	20.4	14.9	5.4	2.7	2.7
67.5°	1.4	4.1	2.7	1.4	1.4
70°	0.0	0.0	1.4	1.4	1.4
72.5°	0.0	0.0	1.4	1.4	1.4
75°	0.0	0.0	0.0	0.0	1.4
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)