

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: P1059289

Luminaire Tested: S123RDRP-S560D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059289  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S560D927-X4F0-XX-UDD-WVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

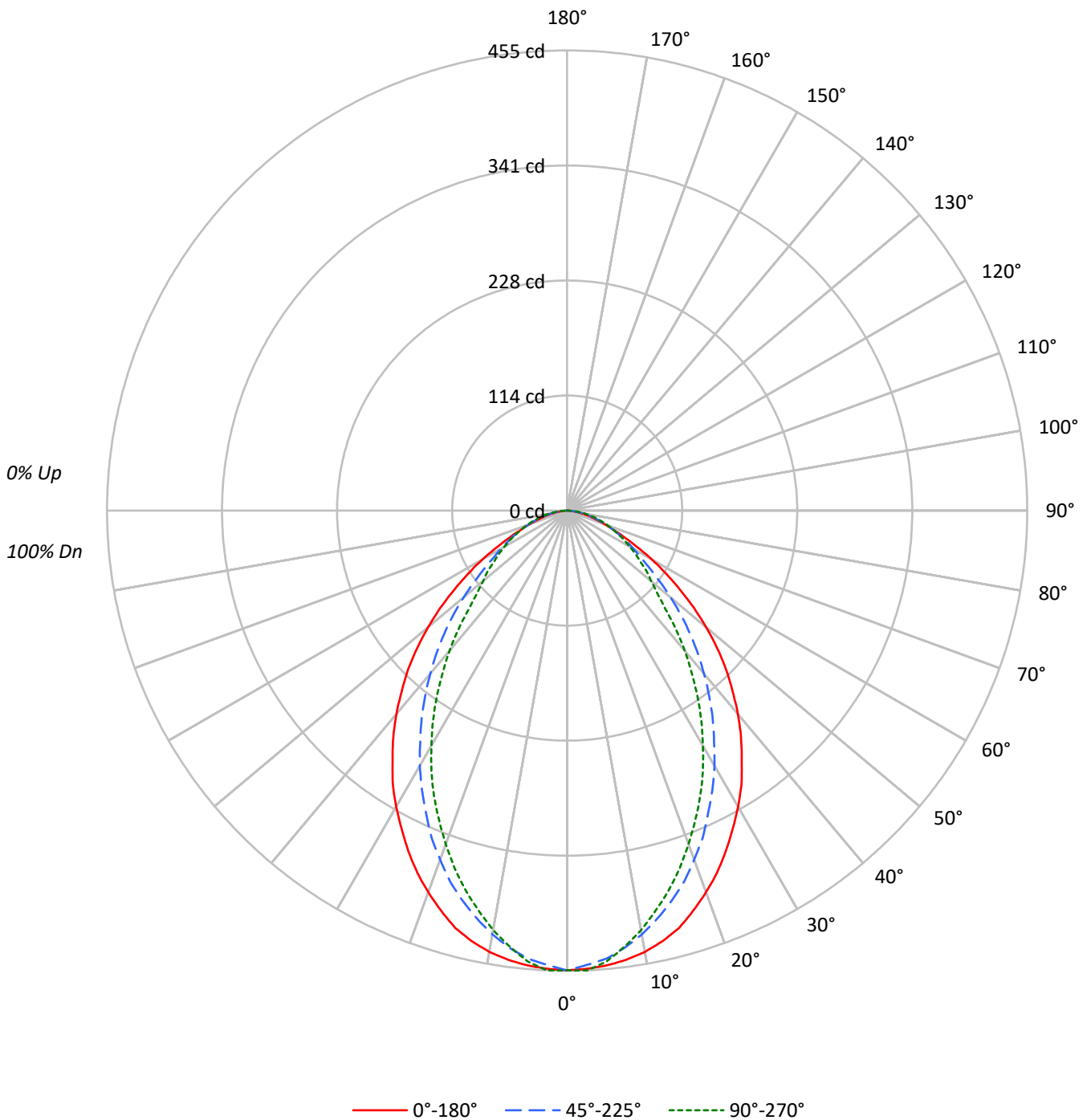
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 795.0 lumens  
Efficiency: N/A  
Efficacy: 40.6 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	5338	5338	5338
5°	5320	5242	5275
10°	5283	5075	5022
15°	5195	4855	4723
20°	5018	4589	4384
25°	4813	4276	4035
30°	4586	3948	3638
35°	4315	3595	3220
40°	4028	3224	2771
45°	3693	2850	2277
50°	3274	2446	1977
55°	2784	2047	1812
60°	2271	1783	1682
65°	1731	1578	1564
70°	1349	1408	1463
75°	1089	1266	1361
80°	811	1035	1258
85°	445	660	1105

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3693 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.2	5.3
10°-20°	113.5	14.3
20°-30°	154.3	19.4
30°-40°	160.0	20.1
40°-50°	134.9	17.0
50°-60°	95.8	12.0
60°-70°	58.5	7.4
70°-80°	29.1	3.7
80°-90°	6.6	0.8
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°	310.1	39.0
0°-40°	470.1	59.1
0°-60°	700.8	88.1
0°-90°	795.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	795.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	455	455	455	455	455	
5°	451	451	445	448	448	43
15°	427	419	399	392	388	120
25°	372	355	330	318	311	171
35°	301	278	251	233	225	188
45°	222	199	172	148	137	171
55°	136	122	100	91	88	122
65°	62	60	57	57	56	64
75°	24	26	28	29	30	26
85°	3	4	5	7	8	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	454.6	454.6	454.6	454.6	454.6
2.5°	453.5	454.0	449.7	454.6	455.1
5°	451.3	451.3	444.7	447.5	447.5
7.5°	448.0	446.9	436.0	436.0	434.9
10°	443.1	439.8	425.6	422.9	421.2
12.5°	436.0	430.5	413.0	408.1	404.9
15°	427.3	419.1	399.4	392.3	388.5
17.5°	414.7	406.5	384.6	374.8	370.4
20°	401.6	389.6	367.2	357.3	350.8
22.5°	387.4	372.1	350.2	338.2	331.1
25°	371.5	355.1	330.0	318.0	311.4
27.5°	354.6	336.6	310.9	297.2	290.7
30°	338.2	317.4	291.2	275.9	268.3
32.5°	320.7	297.2	270.4	254.6	247.0
35°	301.0	278.1	250.8	233.3	224.6
37.5°	282.5	259.0	230.6	212.0	202.2
40°	262.8	239.3	210.3	191.2	180.8
42.5°	242.0	219.6	191.2	168.8	159.0
45°	222.4	198.9	171.6	148.1	137.1
47.5°	201.1	179.2	152.4	128.4	120.7
50°	179.2	159.0	133.9	112.0	108.2
52.5°	157.9	141.0	115.3	101.1	99.4
55°	136.0	121.8	100.0	91.2	88.5
57.5°	115.8	105.4	85.8	81.4	80.3
60°	96.7	88.0	75.9	73.2	71.6
62.5°	78.1	73.2	66.1	65.0	63.9
65°	62.3	60.1	56.8	56.8	56.3
67.5°	49.2	49.2	48.6	49.7	49.2
70°	39.3	39.9	41.0	42.1	42.6
72.5°	31.1	32.8	33.9	35.5	36.1
75°	24.0	25.7	27.9	29.0	30.0
77.5°	17.5	19.1	21.3	22.9	24.0
80°	12.0	13.1	15.3	17.5	18.6
82.5°	7.6	8.2	9.8	12.0	13.1
85°	3.3	3.8	4.9	7.1	8.2
87.5°	0.0	0.0	0.5	2.2	3.8
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	14.63	16.08	14.99	16.39	16.70	12.72	14.17	13.09	14.49	14.80
	3H	15.52	16.82	15.90	17.15	17.51	14.30	15.59	14.68	15.92	16.28
	4H	15.81	17.02	16.21	17.37	17.75	14.89	16.11	15.29	16.45	16.84
	6H	15.96	17.07	16.37	17.44	17.83	15.34	16.46	15.76	16.83	17.22
	8H	15.98	17.04	16.41	17.43	17.83	15.49	16.55	15.92	16.94	17.35
	12H	15.97	16.99	16.40	17.37	17.80	15.59	16.61	16.02	16.99	17.42
4H	2H	14.87	16.08	15.27	16.43	16.81	13.26	14.48	13.67	14.83	15.21
	3H	15.98	16.98	16.40	17.39	17.79	15.04	16.04	15.45	16.44	16.84
	4H	16.37	17.27	16.81	17.69	18.13	15.75	16.65	16.19	17.07	17.51
	6H	16.62	17.39	17.07	17.84	18.30	16.32	17.10	16.78	17.55	18.01
	8H	16.66	17.39	17.12	17.83	18.30	16.51	17.24	16.98	17.69	18.16
	12H	16.67	17.31	17.15	17.79	18.27	16.65	17.30	17.14	17.78	18.25
8H	4H	16.53	17.26	17.00	17.70	18.17	15.96	16.69	16.43	17.13	17.60
	6H	16.84	17.44	17.34	17.94	18.41	16.64	17.24	17.14	17.73	18.21
	8H	16.92	17.46	17.44	17.97	18.46	16.89	17.43	17.41	17.94	18.43
	12H	16.95	17.43	17.47	17.92	18.49	17.10	17.58	17.61	18.07	18.64
12H	4H	16.54	17.18	17.02	17.66	18.14	15.96	16.61	16.44	17.09	17.56
	6H	16.86	17.40	17.38	17.91	18.40	16.65	17.18	17.16	17.69	18.18
	8H	16.97	17.45	17.48	17.94	18.51	16.95	17.42	17.46	17.92	18.48