

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: P1059226

Luminaire Tested: S123RDRP-S340D935-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059226  
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-S340D935-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: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

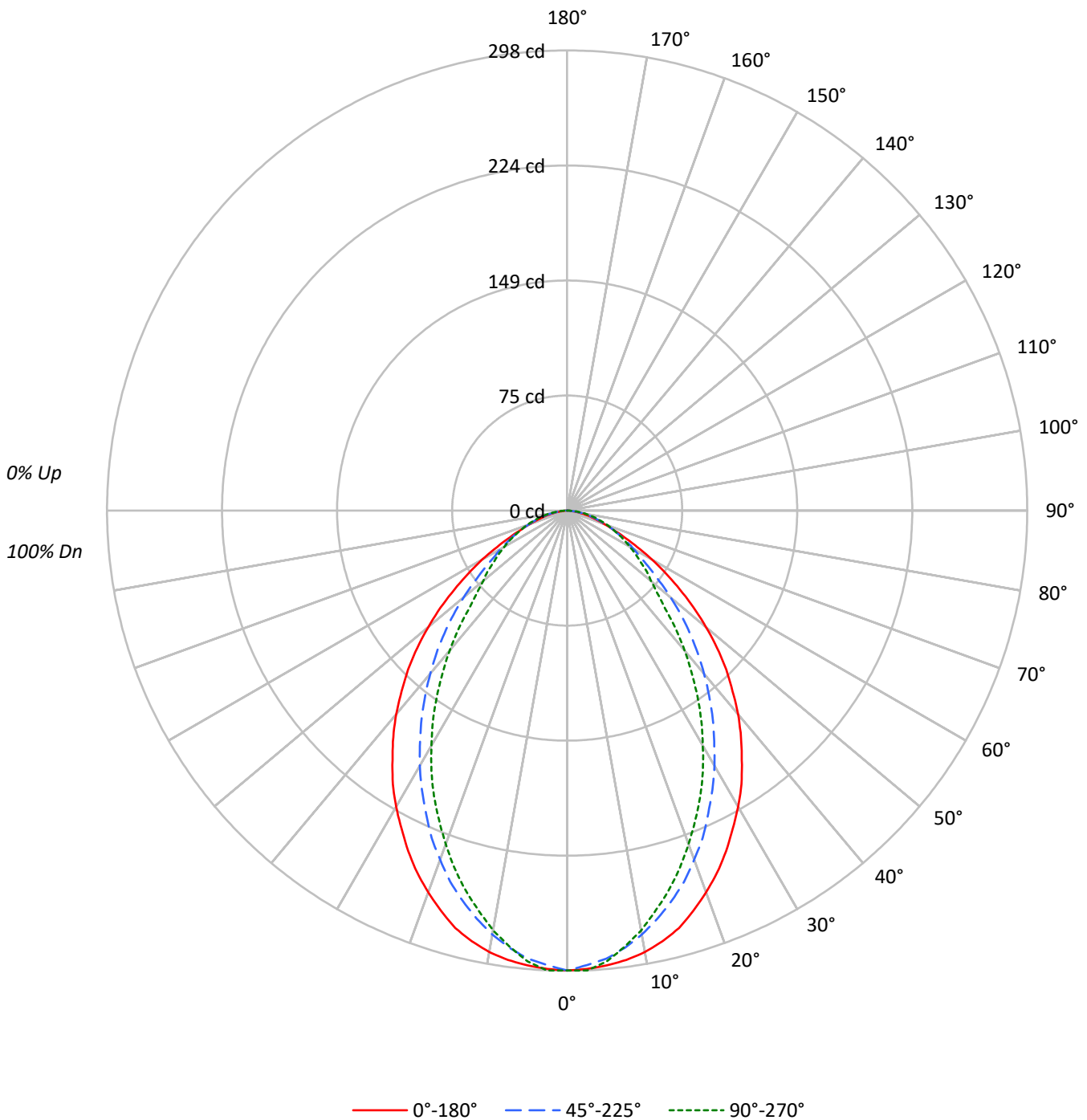
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 520.9 lumens  
Efficiency: N/A  
Efficacy: 41.7 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): 12.5  
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°	3497	3497	3497
5°	3484	3434	3455
10°	3461	3324	3291
15°	3403	3180	3094
20°	3288	3005	2872
25°	3154	2801	2643
30°	3003	2587	2382
35°	2827	2355	2109
40°	2640	2112	1816
45°	2420	1867	1491
50°	2145	1602	1295
55°	1824	1341	1187
60°	1489	1170	1101
65°	1134	1034	1025
70°	886	920	958
75°	712	830	894
80°	534	676	825
85°	283	431	728

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2420 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.6	5.3
10°-20°	74.4	14.3
20°-30°	101.1	19.4
30°-40°	104.8	20.1
40°-50°	88.4	17.0
50°-60°	62.7	12.0
60°-70°	38.4	7.4
70°-80°	19.1	3.7
80°-90°	4.3	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°	203.1	39.0
0°-40°	307.9	59.1
0°-60°	459.1	88.1
0°-90°	520.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	520.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	298	298	298	298	298	
5°	296	296	291	293	293	28
15°	280	274	262	257	254	79
25°	243	233	216	208	204	112
35°	197	182	164	153	147	123
45°	146	130	112	97	90	112
55°	89	80	66	60	58	80
65°	41	39	37	37	37	42
75°	16	17	18	19	20	17
85°	2	2	3	5	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	297.8	297.8	297.8	297.8	297.8
2.5°	297.1	297.4	294.6	297.8	298.1
5°	295.6	295.6	291.3	293.1	293.1
7.5°	293.5	292.8	285.6	285.6	284.9
10°	290.3	288.1	278.8	277.0	276.0
12.5°	285.6	282.0	270.6	267.4	265.2
15°	279.9	274.5	261.6	257.0	254.5
17.5°	271.7	266.3	252.0	245.5	242.7
20°	263.1	255.2	240.5	234.1	229.8
22.5°	253.8	243.7	229.4	221.5	216.9
25°	243.4	232.6	216.2	208.3	204.0
27.5°	232.3	220.5	203.7	194.7	190.4
30°	221.5	207.9	190.8	180.7	175.7
32.5°	210.1	194.7	177.2	166.8	161.8
35°	197.2	182.2	164.3	152.8	147.1
37.5°	185.0	169.7	151.0	138.9	132.4
40°	172.2	156.8	137.8	125.3	118.5
42.5°	158.6	143.9	125.3	110.6	104.2
45°	145.7	130.3	112.4	97.0	89.8
47.5°	131.7	117.4	99.9	84.1	79.1
50°	117.4	104.2	87.7	73.4	70.9
52.5°	103.4	92.3	75.5	66.2	65.1
55°	89.1	79.8	65.5	59.8	58.0
57.5°	75.9	69.1	56.2	53.3	52.6
60°	63.4	57.6	49.8	48.0	46.9
62.5°	51.2	48.0	43.3	42.6	41.9
65°	40.8	39.4	37.2	37.2	36.9
67.5°	32.2	32.2	31.9	32.6	32.2
70°	25.8	26.1	26.8	27.6	27.9
72.5°	20.4	21.5	22.2	23.3	23.6
75°	15.7	16.8	18.3	19.0	19.7
77.5°	11.5	12.5	14.0	15.0	15.7
80°	7.9	8.6	10.0	11.5	12.2
82.5°	5.0	5.4	6.4	7.9	8.6
85°	2.1	2.5	3.2	4.7	5.4
87.5°	0.0	0.0	0.4	1.4	2.5
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	13.16	14.61	13.53	14.92	15.24	11.25	12.70	11.62	13.02	13.33
	3H	14.06	15.35	14.43	15.68	16.04	12.83	14.12	13.21	14.45	14.81
	4H	14.34	15.55	14.74	15.90	16.28	13.42	14.64	13.82	14.99	15.37
	6H	14.49	15.61	14.90	15.97	16.37	13.87	14.99	14.29	15.36	15.75
	8H	14.51	15.57	14.94	15.96	16.37	14.02	15.09	14.45	15.48	15.88
	12H	14.51	15.52	14.94	15.90	16.33	14.12	15.14	14.55	15.52	15.95
4H	2H	13.40	14.62	13.80	14.96	15.34	11.79	13.01	12.19	13.35	13.73
	3H	14.52	15.52	14.93	15.92	16.32	13.57	14.57	13.98	14.97	15.37
	4H	14.90	15.80	15.34	16.22	16.66	14.28	15.18	14.72	15.60	16.04
	6H	15.15	15.93	15.61	16.37	16.83	14.85	15.63	15.31	16.08	16.54
	8H	15.19	15.92	15.66	16.36	16.83	15.05	15.77	15.51	16.22	16.69
	12H	15.20	15.85	15.68	16.33	16.80	15.19	15.83	15.67	16.31	16.79
8H	4H	15.06	15.79	15.53	16.24	16.70	14.49	15.22	14.96	15.67	16.13
	6H	15.38	15.97	15.88	16.47	16.95	15.17	15.77	15.67	16.26	16.74
	8H	15.45	15.99	15.97	16.50	16.99	15.43	15.96	15.94	16.48	16.97
	12H	15.49	15.96	16.00	16.45	17.02	15.64	16.11	16.15	16.61	17.17
12H	4H	15.07	15.71	15.55	16.19	16.67	14.49	15.14	14.97	15.62	16.09
	6H	15.39	15.93	15.91	16.44	16.93	15.18	15.71	15.69	16.23	16.72
	8H	15.51	15.98	16.02	16.47	17.04	15.48	15.96	15.99	16.45	17.02