

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: P1059172

Luminaire Tested: S123RDRP-S340D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059172  
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-S340D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

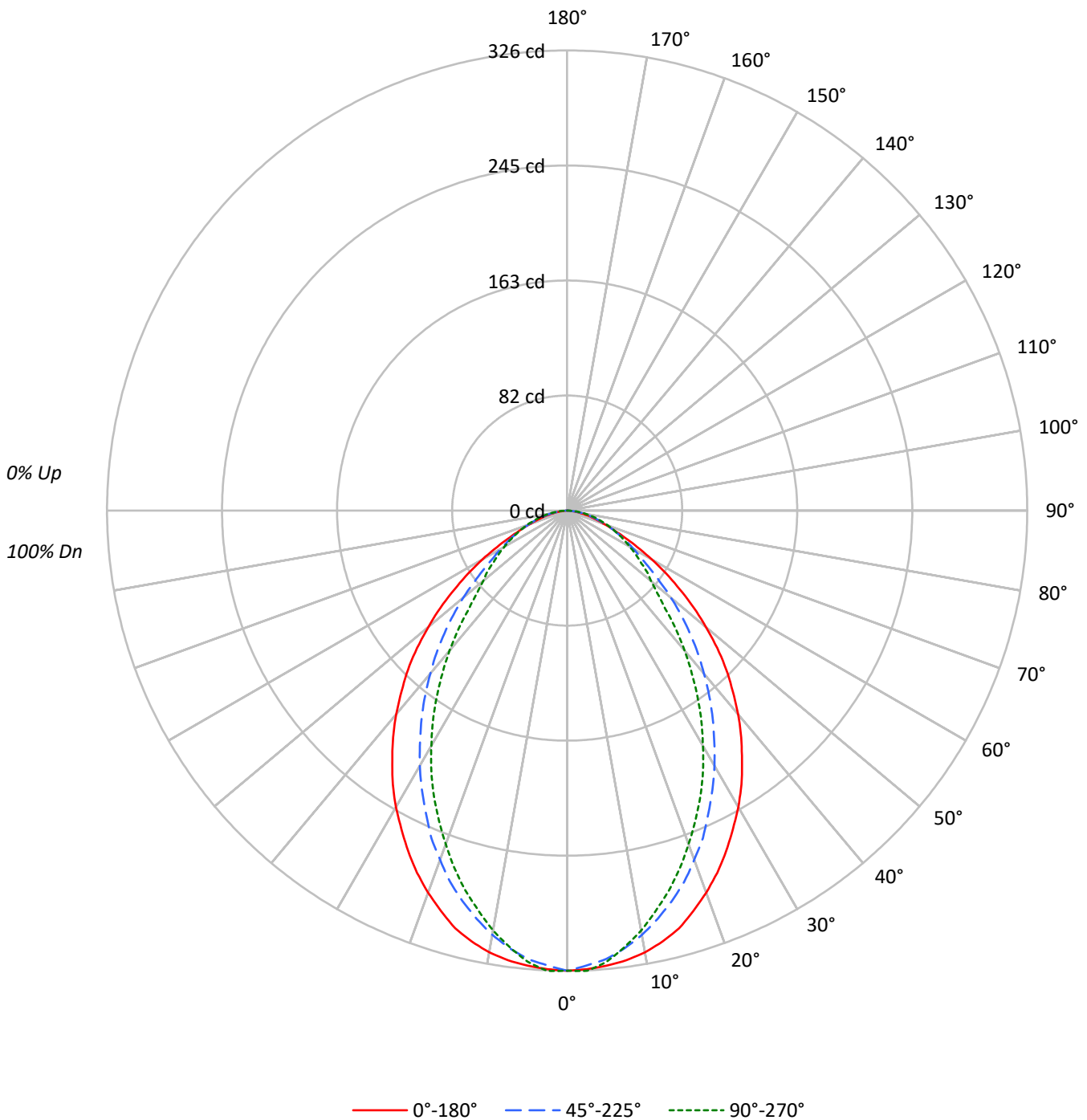
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 570.1 lumens  
Efficiency: N/A  
Efficacy: 45.6 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): 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	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													100															
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88													88															
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76													76															
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66													66															
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58													58															
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52													52															
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47													47															
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42													42															
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38													38															
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35													35															
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32													32															

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

	0°	45°	90°
0°	3828	3828	3828
5°	3814	3759	3783
10°	3789	3639	3602
15°	3725	3482	3387
20°	3599	3290	3143
25°	3452	3067	2893
30°	3288	2831	2609
35°	3095	2577	2308
40°	2889	2312	1988
45°	2649	2043	1632
50°	2347	1754	1418
55°	1998	1468	1300
60°	1630	1280	1205
65°	1242	1131	1123
70°	968	1009	1051
75°	780	907	975
80°	582	744	899
85°	323	472	795

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2649 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.3	5.3
10°-20°	81.4	14.3
20°-30°	110.7	19.4
30°-40°	114.7	20.1
40°-50°	96.8	17.0
50°-60°	68.7	12.0
60°-70°	42.0	7.4
70°-80°	20.9	3.7
80°-90°	4.7	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°	222.3	39.0
0°-40°	337.1	59.1
0°-60°	502.5	88.1
0°-90°	570.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	570.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	326	326	326	326	326	
5°	324	324	319	321	321	31
15°	306	300	286	281	279	86
25°	266	255	237	228	223	122
35°	216	199	180	167	161	135
45°	160	143	123	106	98	122
55°	98	87	72	65	64	88
65°	45	43	41	41	40	46
75°	17	18	20	21	22	19
85°	2	3	4	5	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	326.0	326.0	326.0	326.0	326.0
2.5°	325.2	325.6	322.5	326.0	326.4
5°	323.6	323.6	318.9	320.9	320.9
7.5°	321.3	320.5	312.7	312.7	311.9
10°	317.8	315.4	305.2	303.3	302.1
12.5°	312.7	308.7	296.2	292.7	290.3
15°	306.4	300.5	286.4	281.3	278.6
17.5°	297.4	291.5	275.8	268.8	265.6
20°	288.0	279.4	263.3	256.2	251.5
22.5°	277.8	266.8	251.2	242.5	237.4
25°	266.4	254.7	236.7	228.0	223.3
27.5°	254.3	241.4	222.9	213.1	208.4
30°	242.5	227.6	208.8	197.9	192.4
32.5°	230.0	213.1	193.9	182.6	177.1
35°	215.9	199.4	179.8	167.3	161.0
37.5°	202.6	185.7	165.3	152.0	145.0
40°	188.5	171.6	150.8	137.1	129.7
42.5°	173.6	157.5	137.1	121.1	114.0
45°	159.5	142.6	123.0	106.2	98.3
47.5°	144.2	128.5	109.3	92.1	86.6
50°	128.5	114.0	96.0	80.3	77.6
52.5°	113.2	101.1	82.7	72.5	71.3
55°	97.6	87.4	71.7	65.4	63.5
57.5°	83.1	75.6	61.5	58.4	57.6
60°	69.4	63.1	54.5	52.5	51.3
62.5°	56.0	52.5	47.4	46.6	45.8
65°	44.7	43.1	40.7	40.7	40.4
67.5°	35.3	35.3	34.9	35.7	35.3
70°	28.2	28.6	29.4	30.2	30.6
72.5°	22.3	23.5	24.3	25.5	25.9
75°	17.2	18.4	20.0	20.8	21.5
77.5°	12.5	13.7	15.3	16.5	17.2
80°	8.6	9.4	11.0	12.5	13.3
82.5°	5.5	5.9	7.1	8.6	9.4
85°	2.4	2.7	3.5	5.1	5.9
87.5°	0.0	0.0	0.4	1.6	2.7
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	13.47	14.92	13.84	15.24	15.55	11.57	13.02	11.94	13.33	13.65
	3H	14.37	15.67	14.75	15.99	16.36	13.15	14.44	13.53	14.77	15.13
	4H	14.65	15.86	15.05	16.21	16.59	13.74	14.95	14.14	15.30	15.68
	6H	14.80	15.92	15.21	16.29	16.68	14.19	15.31	14.60	15.68	16.07
	8H	14.82	15.89	15.25	16.28	16.68	14.34	15.40	14.77	15.79	16.19
	12H	14.82	15.83	15.25	16.22	16.65	14.44	15.45	14.87	15.84	16.27
4H	2H	13.71	14.93	14.12	15.28	15.66	12.11	13.32	12.51	13.67	14.05
	3H	14.83	15.83	15.24	16.23	16.63	13.89	14.89	14.30	15.29	15.69
	4H	15.22	16.12	15.65	16.53	16.97	14.60	15.50	15.03	15.91	16.36
	6H	15.46	16.24	15.92	16.68	17.14	15.17	15.95	15.63	16.39	16.85
	8H	15.50	16.23	15.97	16.68	17.14	15.36	16.09	15.83	16.53	17.00
	12H	15.51	16.16	16.00	16.64	17.11	15.50	16.15	15.98	16.63	17.10
8H	4H	15.38	16.10	15.84	16.55	17.02	14.81	15.54	15.27	15.98	16.45
	6H	15.69	16.29	16.19	16.78	17.26	15.48	16.08	15.98	16.57	17.05
	8H	15.77	16.30	16.28	16.81	17.30	15.74	16.28	16.26	16.79	17.28
	12H	15.80	16.28	16.31	16.77	17.34	15.95	16.42	16.46	16.92	17.48
12H	4H	15.38	16.03	15.87	16.51	16.98	14.81	15.45	15.29	15.93	16.41
	6H	15.70	16.24	16.22	16.75	17.24	15.49	16.03	16.01	16.54	17.03
	8H	15.82	16.29	16.33	16.79	17.35	15.79	16.27	16.31	16.76	17.33