

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: P1057795

Luminaire Tested: S122RDRP-S1005D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057795  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S1005D830-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

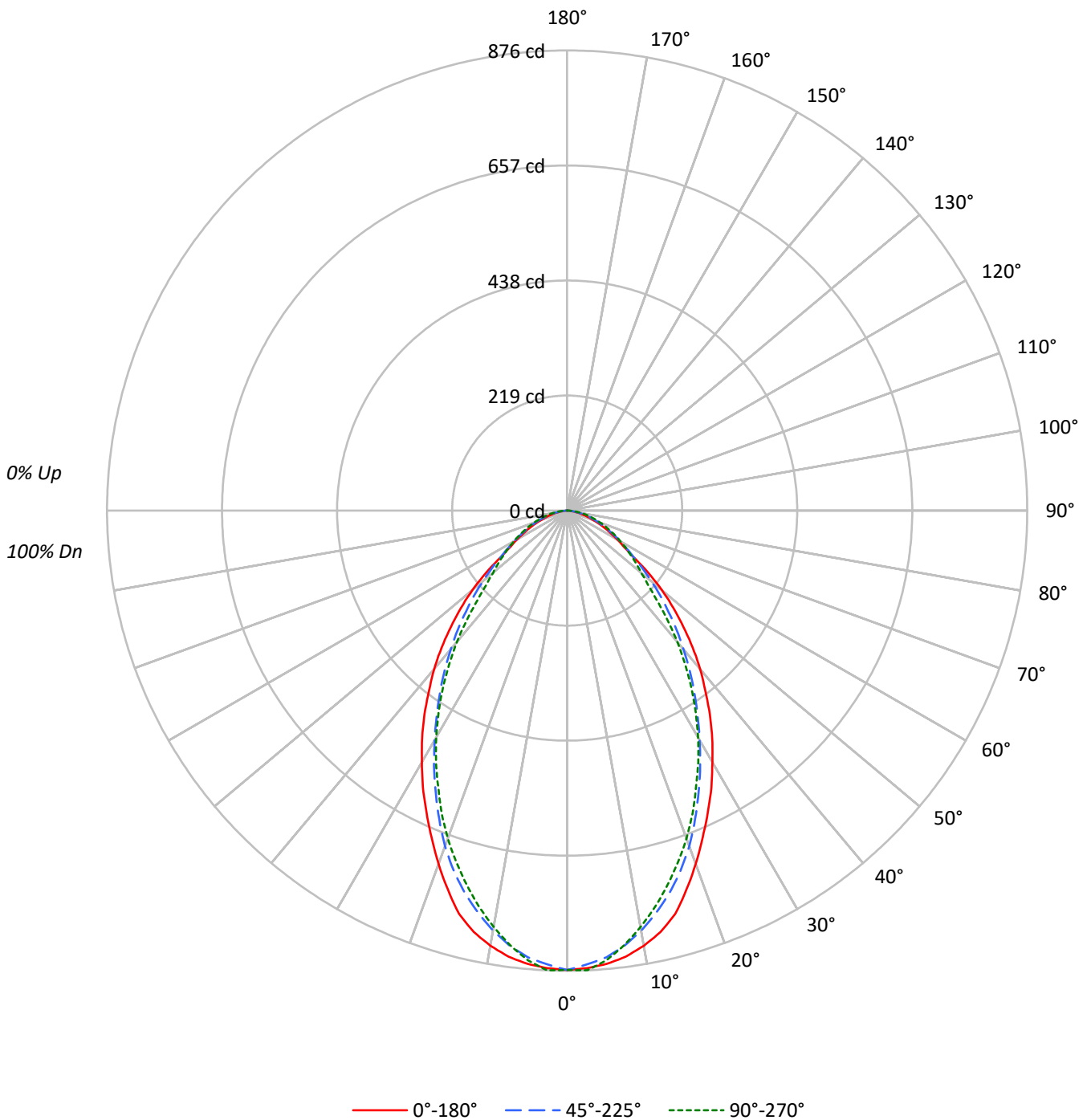
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1328.1 lumens  
Efficiency: N/A  
Efficacy: 31.8 lumens/watt  
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02  
Luminous Opening: Rectangular (W 0.15' 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	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	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77					77			
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68					68			
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61					61			
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54					54			
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49					49			
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44					44			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41					41			
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34					34			

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

	0°	45°	90°
0°	16137	16137	16137
5°	16045	15811	15915
10°	15760	15211	15082
15°	15189	14393	14098
20°	14056	13345	13043
25°	12900	12049	11823
30°	11779	10741	10622
35°	10666	9504	9285
40°	9493	8286	7850
45°	8176	7122	6286
50°	6755	5997	5276
55°	4884	4974	4748
60°	4060	4266	4318
65°	3467	3707	3951
70°	2854	3307	3604
75°	2381	2780	3280
80°	1775	2221	2965
85°	593	1186	2646

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8176 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.8	6.1
10°-20°	212.9	16.0
20°-30°	275.5	20.7
30°-40°	270.2	20.3
40°-50°	212.8	16.0
50°-60°	139.5	10.5
60°-70°	84.9	6.4
70°-80°	42.4	3.2
80°-90°	9.1	0.7
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°	569.2	42.9
0°-40°	839.4	63.2
0°-60°	1191.6	89.7
0°-90°	1328.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1328.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	874	874	874	874	874	
5°	866	866	854	859	859	82
15°	795	784	753	744	738	221
25°	634	613	592	589	581	291
35°	474	447	422	420	412	295
45°	313	294	273	253	241	241
55°	152	160	155	149	148	144
65°	79	81	85	89	90	79
75°	33	35	39	45	46	36
85°	3	4	6	10	12	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	874.5	874.5	874.5	874.5	874.5
2.5°	871.7	873.1	864.8	873.1	875.9
5°	866.2	866.2	853.6	859.2	859.2
7.5°	856.4	855.0	835.5	835.5	834.1
10°	841.1	835.5	811.8	807.7	804.9
12.5°	821.6	811.8	784.0	777.0	772.9
15°	795.1	784.0	753.4	743.6	738.0
17.5°	756.1	745.0	718.5	707.4	701.8
20°	715.8	699.1	679.6	669.8	664.2
22.5°	674.0	654.5	636.4	629.4	623.9
25°	633.6	612.7	591.8	589.0	580.7
27.5°	594.6	569.5	548.7	547.3	540.3
30°	552.8	526.4	504.1	505.5	498.5
32.5°	513.8	488.8	462.3	463.7	455.4
35°	473.5	447.0	421.9	420.5	412.2
37.5°	431.7	406.6	382.9	377.4	369.0
40°	394.1	369.0	344.0	334.2	325.9
42.5°	353.7	331.4	309.1	293.8	282.7
45°	313.3	293.8	272.9	253.4	240.9
47.5°	274.3	259.0	240.9	217.2	208.9
50°	235.3	224.2	208.9	188.0	183.8
52.5°	195.0	190.8	181.0	167.1	165.7
55°	151.8	160.1	154.6	149.0	147.6
57.5°	128.1	129.5	133.7	132.3	132.3
60°	110.0	110.0	115.6	117.0	117.0
62.5°	93.3	94.7	100.3	103.0	103.0
65°	79.4	80.8	84.9	89.1	90.5
67.5°	65.4	68.2	72.4	76.6	78.0
70°	52.9	55.7	61.3	65.4	66.8
72.5°	43.2	44.6	50.1	54.3	55.7
75°	33.4	34.8	39.0	44.6	46.0
77.5°	23.7	26.5	30.6	34.8	37.6
80°	16.7	18.1	20.9	26.5	27.9
82.5°	9.7	11.1	13.9	18.1	19.5
85°	2.8	4.2	5.6	9.7	12.5
87.5°	0.0	0.0	0.0	2.8	5.6
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	15.78	17.18	16.15	17.49	17.81	15.96	17.36	16.33	17.67	17.99
	3H	16.92	18.16	17.30	18.49	18.85	17.42	18.67	17.80	19.00	19.36
	4H	17.27	18.43	17.67	18.78	19.16	17.97	19.13	18.37	19.48	19.86
	6H	17.45	18.52	17.87	18.89	19.29	18.38	19.45	18.79	19.82	20.21
	8H	17.48	18.50	17.91	18.89	19.29	18.51	19.52	18.94	19.91	20.32
	12H	17.46	18.44	17.90	18.82	19.25	18.59	19.56	19.02	19.95	20.38
4H	2H	16.24	17.41	16.64	17.76	18.14	16.39	17.55	16.79	17.90	18.29
	3H	17.58	18.54	17.99	18.94	19.34	18.06	19.02	18.47	19.42	19.82
	4H	18.03	18.88	18.46	19.30	19.74	18.73	19.59	19.16	20.01	20.45
	6H	18.30	19.04	18.76	19.49	19.95	19.26	20.01	19.72	20.45	20.92
	8H	18.34	19.04	18.81	19.48	19.95	19.43	20.13	19.90	20.57	21.04
	12H	18.34	18.95	18.82	19.43	19.91	19.55	20.17	20.04	20.65	21.12
8H	4H	18.24	18.93	18.71	19.38	19.85	18.88	19.57	19.34	20.02	20.49
	6H	18.59	19.16	19.09	19.65	20.13	19.51	20.08	20.01	20.57	21.05
	8H	18.66	19.17	19.18	19.69	20.18	19.74	20.25	20.26	20.77	21.26
	12H	18.68	19.13	19.19	19.62	20.19	19.93	20.38	20.44	20.87	21.44
12H	4H	18.25	18.87	18.74	19.35	19.82	18.86	19.48	19.35	19.96	20.43
	6H	18.61	19.12	19.13	19.64	20.13	19.50	20.01	20.02	20.53	21.02
	8H	18.73	19.18	19.24	19.67	20.24	19.78	20.23	20.29	20.72	21.29