

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P1058204

Luminaire Tested: S122RDR-H1005D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058204  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H1005D835-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

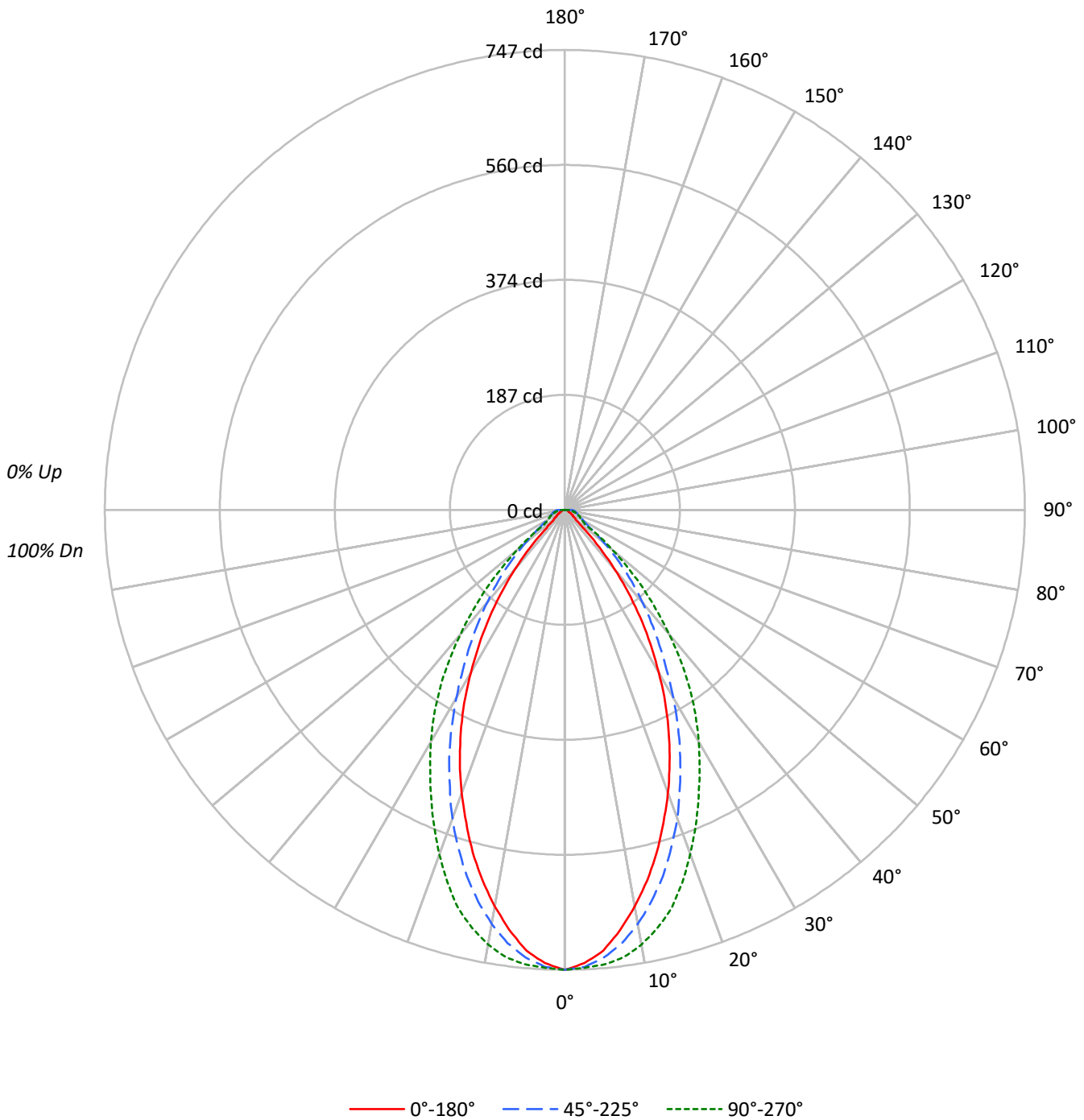
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 805.3 lumens  
Efficiency: N/A  
Efficacy: 22.1 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.5  
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57				
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				

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

	0°	45°	90°
0°	13786	13786	13786
5°	13307	13520	13731
10°	12254	12792	13435
15°	11019	11756	12795
20°	9612	10482	11692
25°	8130	9034	10461
30°	6494	7502	9271
35°	4803	6028	7963
40°	3033	4724	6342
45°	1195	3549	4669
50°	617	2383	2876
55°	505	1567	1290
60°	369	1266	1163
65°	314	1188	1188
70°	308	1235	1160
75°	406	1426	1226
80°	606	1828	1371
85°	910	3028	1821

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 6049 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.3	8.5
10°-20°	172.6	21.4
20°-30°	205.1	25.5
30°-40°	170.6	21.2
40°-50°	95.3	11.8
50°-60°	38.5	4.8
60°-70°	24.6	3.1
70°-80°	18.5	2.3
80°-90°	11.8	1.5
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°	446.0	55.4
0°-40°	616.6	76.6
0°-60°	750.4	93.2
0°-90°	805.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	805.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	747	747	747	747	747	
5°	718	731	730	736	741	66
15°	577	594	615	647	670	160
25°	399	415	444	478	514	182
35°	213	233	268	312	354	132
45°	46	77	136	159	179	43
55°	16	33	49	47	40	14
65°	7	29	27	26	27	7
75°	6	20	20	19	17	6
85°	4	13	14	13	9	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	747.1	747.1	747.1	747.1	747.1
2.5°	737.0	748.5	742.8	742.8	744.2
5°	718.4	731.3	729.9	735.6	741.3
7.5°	688.4	702.7	709.9	722.7	732.8
10°	654.0	669.8	682.7	702.7	717.0
12.5°	616.8	632.6	651.2	676.9	695.5
15°	576.8	593.9	615.4	646.9	669.8
17.5°	532.4	551.0	575.3	609.7	634.0
20°	489.5	508.1	533.8	568.2	595.4
22.5°	445.1	460.8	488.0	522.4	555.3
25°	399.3	415.0	443.7	478.0	513.8
27.5°	353.5	369.2	397.9	433.6	473.7
30°	304.8	322.0	352.1	392.1	435.1
32.5°	259.0	276.2	307.7	352.1	395.0
35°	213.2	233.3	267.6	312.0	353.5
37.5°	168.9	191.8	230.4	271.9	309.1
40°	125.9	150.3	196.1	231.8	263.3
42.5°	83.0	111.6	164.6	194.6	219.0
45°	45.8	77.3	136.0	158.9	178.9
47.5°	25.8	50.1	107.3	125.9	137.4
50°	21.5	37.2	83.0	95.9	100.2
52.5°	17.2	34.3	63.0	70.1	67.3
55°	15.7	32.9	48.7	47.2	40.1
57.5°	12.9	32.9	38.6	34.3	34.3
60°	10.0	31.5	34.3	30.1	31.5
62.5°	8.6	30.1	31.5	28.6	28.6
65°	7.2	28.6	27.2	25.8	27.2
67.5°	5.7	25.8	25.8	24.3	24.3
70°	5.7	24.3	22.9	21.5	21.5
72.5°	5.7	21.5	21.5	20.0	20.0
75°	5.7	20.0	20.0	18.6	17.2
77.5°	5.7	17.2	18.6	17.2	15.7
80°	5.7	15.7	17.2	15.7	12.9
82.5°	5.7	14.3	15.7	14.3	11.4
85°	4.3	12.9	14.3	12.9	8.6
87.5°	4.3	12.9	14.3	11.4	7.2
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	7.48	8.70	7.84	9.01	9.33	8.55	9.77	8.91	10.08	10.39
	3H	8.81	9.89	9.19	10.23	10.59	10.58	11.66	10.96	12.00	12.36
	4H	9.38	10.39	9.79	10.74	11.13	11.54	12.55	11.94	12.90	13.28
	6H	9.95	10.88	10.36	11.25	11.64	12.48	13.41	12.90	13.78	14.18
	8H	10.27	11.15	10.70	11.54	11.95	12.93	13.81	13.36	14.20	14.61
	12H	10.58	11.42	11.01	11.80	12.23	13.35	14.19	13.79	14.58	15.01
4H	2H	8.44	9.45	8.85	9.81	10.19	9.23	10.24	9.63	10.59	10.97
	3H	10.47	11.30	10.88	11.71	12.11	11.51	12.35	11.93	12.75	13.15
	4H	11.55	12.30	11.98	12.72	13.16	12.66	13.41	13.10	13.83	14.27
	6H	12.42	13.07	12.88	13.51	13.98	13.83	14.48	14.30	14.93	15.39
	8H	12.83	13.43	13.30	13.88	14.35	14.39	15.00	14.86	15.44	15.92
	12H	13.21	13.74	13.70	14.23	14.70	14.94	15.47	15.42	15.95	16.43
8H	4H	12.32	12.93	12.79	13.37	13.85	13.21	13.82	13.68	14.27	14.74
	6H	13.66	14.15	14.16	14.65	15.13	14.67	15.16	15.17	15.66	16.14
	8H	14.37	14.82	14.90	15.34	15.83	15.43	15.87	15.95	16.39	16.88
	12H	15.07	15.46	15.58	15.96	16.53	16.22	16.61	16.73	17.11	17.68
12H	4H	12.48	13.01	12.96	13.49	13.97	13.32	13.85	13.81	14.34	14.81
	6H	13.98	14.43	14.50	14.94	15.44	14.89	15.34	15.42	15.86	16.35
	8H	14.88	15.27	15.40	15.77	16.34	15.80	16.19	16.31	16.69	17.26