

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: P1057808

Luminaire Tested: S122RDRP-S1005D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057808  
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: S122RDRP-S1005D840-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

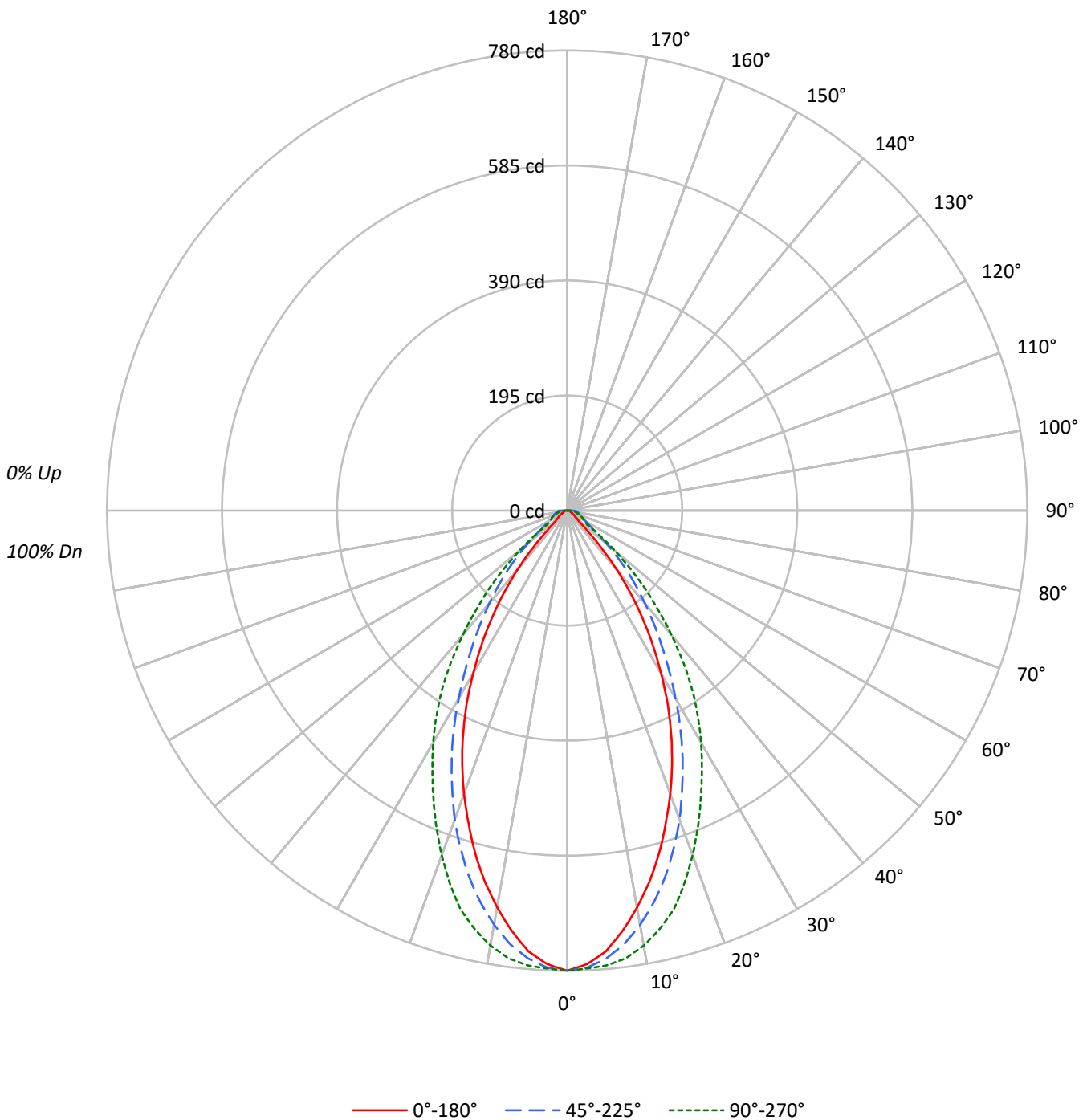
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 840.7 lumens  
Efficiency: N/A  
Efficacy: 20.1 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): 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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90					90			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81					81			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74					74			
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67					67			
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61					61			
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57					57			
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52					52			
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48					48			
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42					42			

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

	0°	45°	90°
0°	14391	14391	14391
5°	13892	14114	14335
10°	12794	13354	14025
15°	11502	12274	13357
20°	10034	10944	12204
25°	8488	9431	10921
30°	6780	7830	9678
35°	5014	6294	8312
40°	3168	4931	6622
45°	1247	3703	4875
50°	643	2489	3003
55°	528	1634	1345
60°	388	1325	1214
65°	327	1240	1240
70°	324	1289	1209
75°	428	1490	1276
80°	638	1902	1424
85°	953	3155	1905

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 6303 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.3	8.5
10°-20°	180.2	21.4
20°-30°	214.1	25.5
30°-40°	178.1	21.2
40°-50°	99.5	11.8
50°-60°	40.2	4.8
60°-70°	25.7	3.1
70°-80°	19.3	2.3
80°-90°	12.3	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°	465.6	55.4
0°-40°	643.7	76.6
0°-60°	783.4	93.2
0°-90°	840.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	840.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	780	780	780	780	780	
5°	750	764	762	768	774	69
15°	602	620	642	675	699	167
25°	417	433	463	499	536	190
35°	223	244	279	326	369	138
45°	48	81	142	166	187	45
55°	16	34	51	49	42	14
65°	8	30	28	27	28	8
75°	6	21	21	19	18	6
85°	4	13	15	13	9	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	779.9	779.9	779.9	779.9	779.9
2.5°	769.5	781.4	775.4	775.4	776.9
5°	750.0	763.5	762.0	768.0	773.9
7.5°	718.7	733.6	741.1	754.5	765.0
10°	682.8	699.2	712.7	733.6	748.5
12.5°	644.0	660.4	679.8	706.7	726.1
15°	602.1	620.0	642.5	675.3	699.2
17.5°	555.8	575.2	600.6	636.5	661.9
20°	511.0	530.4	557.3	593.2	621.5
22.5°	464.7	481.1	509.5	545.3	579.7
25°	416.9	433.3	463.2	499.0	536.4
27.5°	369.0	385.5	415.4	452.7	494.5
30°	318.2	336.2	367.5	409.4	454.2
32.5°	270.4	288.4	321.2	367.5	412.4
35°	222.6	243.5	279.4	325.7	369.0
37.5°	176.3	200.2	240.5	283.9	322.7
40°	131.5	156.9	204.7	242.0	274.9
42.5°	86.7	116.5	171.8	203.2	228.6
45°	47.8	80.7	141.9	165.8	186.8
47.5°	26.9	52.3	112.1	131.5	143.4
50°	22.4	38.8	86.7	100.1	104.6
52.5°	17.9	35.9	65.7	73.2	70.2
55°	16.4	34.4	50.8	49.3	41.8
57.5°	13.4	34.4	40.3	35.9	35.9
60°	10.5	32.9	35.9	31.4	32.9
62.5°	9.0	31.4	32.9	29.9	29.9
65°	7.5	29.9	28.4	26.9	28.4
67.5°	6.0	26.9	26.9	25.4	25.4
70°	6.0	25.4	23.9	22.4	22.4
72.5°	6.0	22.4	22.4	20.9	20.9
75°	6.0	20.9	20.9	19.4	17.9
77.5°	6.0	17.9	19.4	17.9	16.4
80°	6.0	16.4	17.9	16.4	13.4
82.5°	6.0	14.9	16.4	14.9	12.0
85°	4.5	13.4	14.9	13.4	9.0
87.5°	4.5	13.4	14.9	12.0	7.5
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	7.64	8.85	8.00	9.17	9.48	8.71	9.93	9.08	10.24	10.56
	3H	8.97	10.05	9.35	10.38	10.75	10.74	11.82	11.12	12.15	12.52
	4H	9.54	10.55	9.95	10.90	11.29	11.69	12.70	12.09	13.05	13.44
	6H	10.11	11.04	10.53	11.41	11.80	12.63	13.56	13.05	13.93	14.33
	8H	10.44	11.31	10.87	11.71	12.11	13.08	13.96	13.52	14.35	14.76
	12H	10.74	11.58	11.18	11.97	12.40	13.51	14.35	13.94	14.73	15.16
4H	2H	8.60	9.61	9.00	9.96	10.35	9.39	10.40	9.79	10.75	11.14
	3H	10.62	11.46	11.04	11.86	12.27	11.67	12.50	12.08	12.91	13.31
	4H	11.70	12.45	12.14	12.87	13.32	12.81	13.56	13.25	13.98	14.43
	6H	12.57	13.22	13.04	13.67	14.14	13.98	14.63	14.44	15.07	15.54
	8H	12.98	13.59	13.46	14.04	14.51	14.54	15.15	15.01	15.59	16.07
	12H	13.36	13.90	13.85	14.38	14.86	15.09	15.62	15.57	16.11	16.58
8H	4H	12.47	13.08	12.94	13.53	14.00	13.36	13.97	13.83	14.42	14.89
	6H	13.81	14.31	14.31	14.80	15.29	14.81	15.31	15.32	15.81	16.29
	8H	14.52	14.97	15.05	15.49	15.98	15.58	16.02	16.10	16.54	17.03
	12H	15.21	15.61	15.73	16.10	16.68	16.36	16.76	16.88	17.25	17.83
12H	4H	12.63	13.16	13.11	13.65	14.12	13.47	14.00	13.96	14.49	14.96
	6H	14.13	14.58	14.65	15.09	15.59	15.04	15.48	15.56	16.00	16.49
	8H	15.03	15.42	15.55	15.92	16.49	15.94	16.34	16.46	16.83	17.41