

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: P1059435

Luminaire Tested: S123RDRP-H1000D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059435  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-H1000D840-X4F0-XX-UDD-WVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

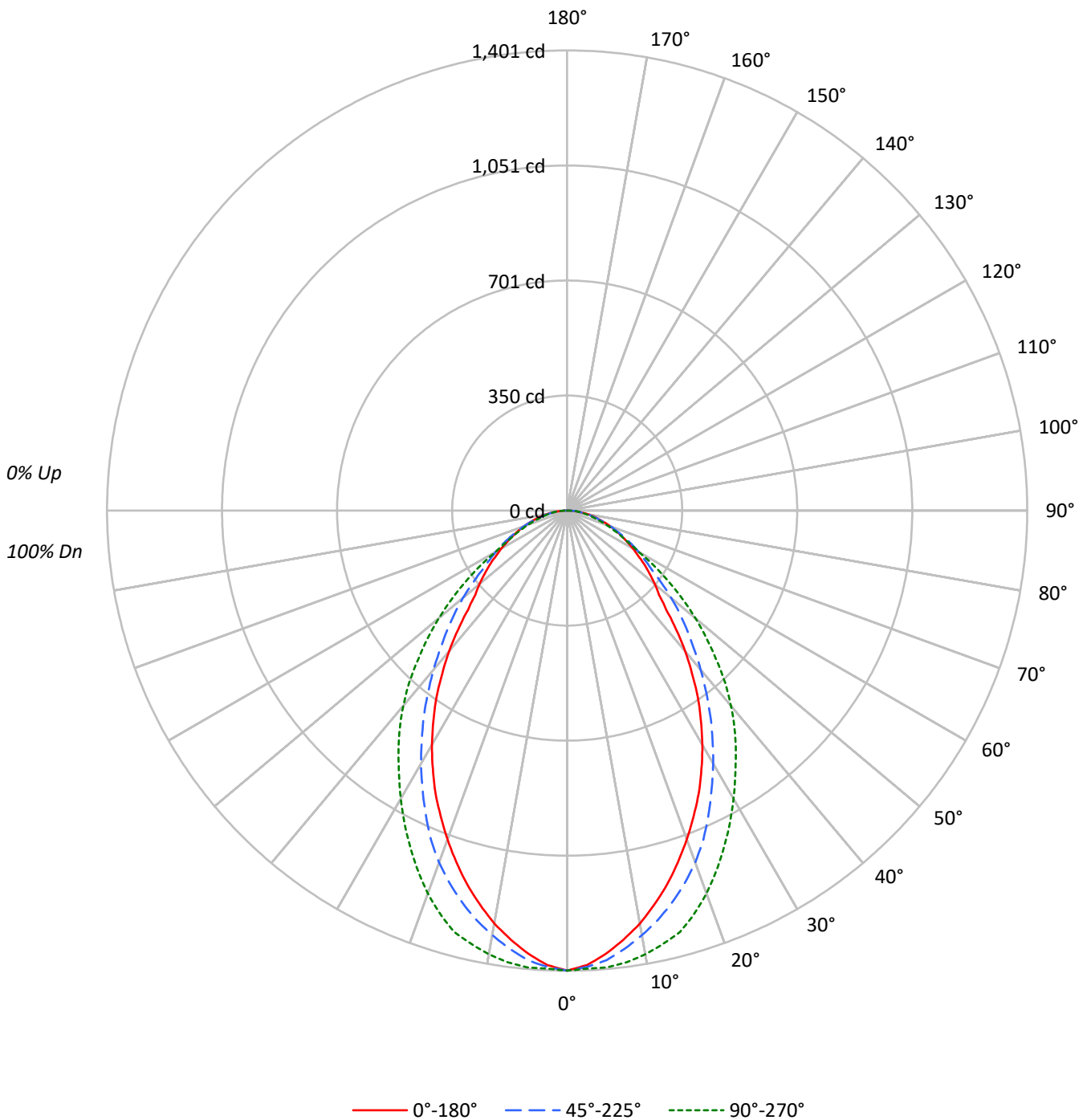
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2461.1 lumens  
Efficiency: N/A  
Efficacy: 78.9 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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

TEST NUMBER: P1059435

CATALOG NUMBER: S123RDRP-H1000D840-X4F0-XX-UDD-WVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1059435

CATALOG NUMBER: S123RDRP-H1000D840-X4F0-XX-UDD-WVL-W

**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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89					87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77					75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68					66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60					58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53					51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48					46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43					41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39					38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36					34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33					32				

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

	0°	45°	90°
0°	16446	16446	16446
5°	15969	16197	16453
10°	15219	15651	16354
15°	14316	15018	16148
20°	13315	14248	15499
25°	12290	13212	14648
30°	11162	12061	13745
35°	9935	10884	12837
40°	8573	9700	11898
45°	7086	8587	10668
50°	6363	7574	9313
55°	5898	6465	7724
60°	5434	5888	5916
65°	5057	5324	4957
70°	4758	4841	4347
75°	4482	4319	3829
80°	4240	3915	3584
85°	4055	4379	4055

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10668 cd/sqm



TEST NUMBER: P1059435

CATALOG NUMBER: S123RDRP-H1000D840-X4F0-XX-UDD-WVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.7	5.3
10°-20°	349.5	14.2
20°-30°	472.8	19.2
30°-40°	485.8	19.7
40°-50°	408.0	16.6
50°-60°	292.5	11.9
60°-70°	186.3	7.6
70°-80°	102.3	4.2
80°-90°	34.1	1.4
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°	952.0	38.7
0°-40°	1437.8	58.4
0°-60°	2138.4	86.9
0°-90°	2461.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2461.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1401	1401	1401	1401	1401	
5°	1355	1379	1374	1384	1396	127
15°	1178	1210	1235	1288	1328	330
25°	949	985	1020	1075	1131	435
35°	693	730	759	827	896	431
45°	427	464	517	592	642	337
55°	288	294	316	358	377	257
65°	182	193	192	181	178	181
75°	99	108	95	88	84	105
85°	30	31	32	34	30	33
90°	0	0	0	0	0	



TEST NUMBER: P1059435

CATALOG NUMBER: S123RDRP-H1000D840-X4F0-XX-UDD-WVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1400.6	1400.6	1400.6	1400.6	1400.6
2.5°	1384.9	1404.2	1390.9	1392.1	1395.8
5°	1354.8	1378.9	1374.1	1383.7	1395.8
7.5°	1317.4	1343.9	1345.1	1368.0	1387.3
10°	1276.4	1304.1	1312.6	1347.5	1371.6
12.5°	1228.2	1258.3	1276.4	1319.8	1351.2
15°	1177.6	1210.1	1235.4	1288.5	1328.3
17.5°	1122.1	1157.1	1189.6	1246.3	1287.3
20°	1065.5	1102.9	1140.2	1193.3	1240.3
22.5°	1006.4	1045.0	1083.6	1135.4	1187.2
25°	948.6	984.7	1019.7	1075.1	1130.6
27.5°	885.9	923.3	953.4	1014.9	1072.7
30°	823.2	860.6	889.5	953.4	1013.7
32.5°	758.1	796.7	823.2	889.5	952.2
35°	693.1	730.4	759.3	826.8	895.5
37.5°	624.4	665.3	694.3	770.2	837.7
40°	559.3	597.8	632.8	712.3	776.2
42.5°	491.8	531.5	571.3	653.3	712.3
45°	426.7	464.0	517.1	591.8	642.4
47.5°	379.7	403.8	465.3	527.9	576.1
50°	348.3	358.0	414.6	470.1	509.8
52.5°	317.0	324.2	362.8	413.4	443.6
55°	288.1	294.1	315.8	358.0	377.3
57.5°	256.7	262.8	280.8	304.9	315.8
60°	231.4	236.2	250.7	254.3	251.9
62.5°	206.1	213.3	220.6	212.1	208.5
65°	182.0	192.9	191.6	180.8	178.4
67.5°	160.3	171.2	165.1	154.3	150.7
70°	138.6	149.5	141.0	130.2	126.6
72.5°	118.1	130.2	116.9	107.3	104.9
75°	98.8	108.5	95.2	88.0	84.4
77.5°	80.8	88.0	75.9	69.9	67.5
80°	62.7	67.5	57.9	54.2	53.0
82.5°	45.8	48.2	42.2	44.6	43.4
85°	30.1	31.3	32.5	33.7	30.1
87.5°	14.5	20.5	20.5	19.3	15.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059435

CATALOG NUMBER: S123RDRP-H1000D840-X4F0-XX-UDD-WVL-W

**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	16.91	18.38	17.28	18.69	19.01	17.98	19.45	18.35	19.76	20.07
	3H	18.61	19.92	18.99	20.25	20.61	19.07	20.38	19.45	20.71	21.07
	4H	19.26	20.49	19.67	20.84	21.22	19.47	20.70	19.87	21.05	21.43
	6H	19.77	20.90	20.18	21.27	21.66	19.78	20.91	20.19	21.28	21.67
	8H	19.94	21.02	20.37	21.41	21.81	19.91	20.99	20.34	21.38	21.78
	12H	20.07	21.10	20.50	21.48	21.91	20.03	21.07	20.46	21.45	21.88
4H	2H	17.51	18.74	17.92	19.09	19.47	18.39	19.61	18.79	19.96	20.34
	3H	19.44	20.46	19.85	20.86	21.26	19.70	20.72	20.12	21.12	21.52
	4H	20.25	21.17	20.69	21.59	22.03	20.22	21.14	20.66	21.56	22.00
	6H	20.90	21.70	21.36	22.14	22.60	20.66	21.45	21.11	21.90	22.36
	8H	21.12	21.87	21.59	22.31	22.78	20.85	21.59	21.31	22.04	22.50
	12H	21.30	21.96	21.78	22.44	22.91	21.03	21.69	21.51	22.17	22.64
8H	4H	20.49	21.24	20.96	21.68	22.15	20.47	21.21	20.93	21.66	22.13
	6H	21.28	21.89	21.78	22.39	22.87	21.02	21.63	21.51	22.12	22.60
	8H	21.59	22.15	22.11	22.66	23.15	21.29	21.85	21.81	22.36	22.85
	12H	21.86	22.35	22.37	22.84	23.41	21.59	22.07	22.10	22.57	23.13
12H	4H	20.50	21.17	20.99	21.65	22.12	20.50	21.16	20.98	21.64	22.11
	6H	21.31	21.87	21.83	22.38	22.87	21.07	21.62	21.58	22.13	22.62
	8H	21.69	22.18	22.20	22.67	23.24	21.41	21.90	21.92	22.39	22.96