

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: P1059021

Luminaire Tested: S123RDRP-S1000D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059021  
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-S1000D835-X4F0-XX-UDD-WVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

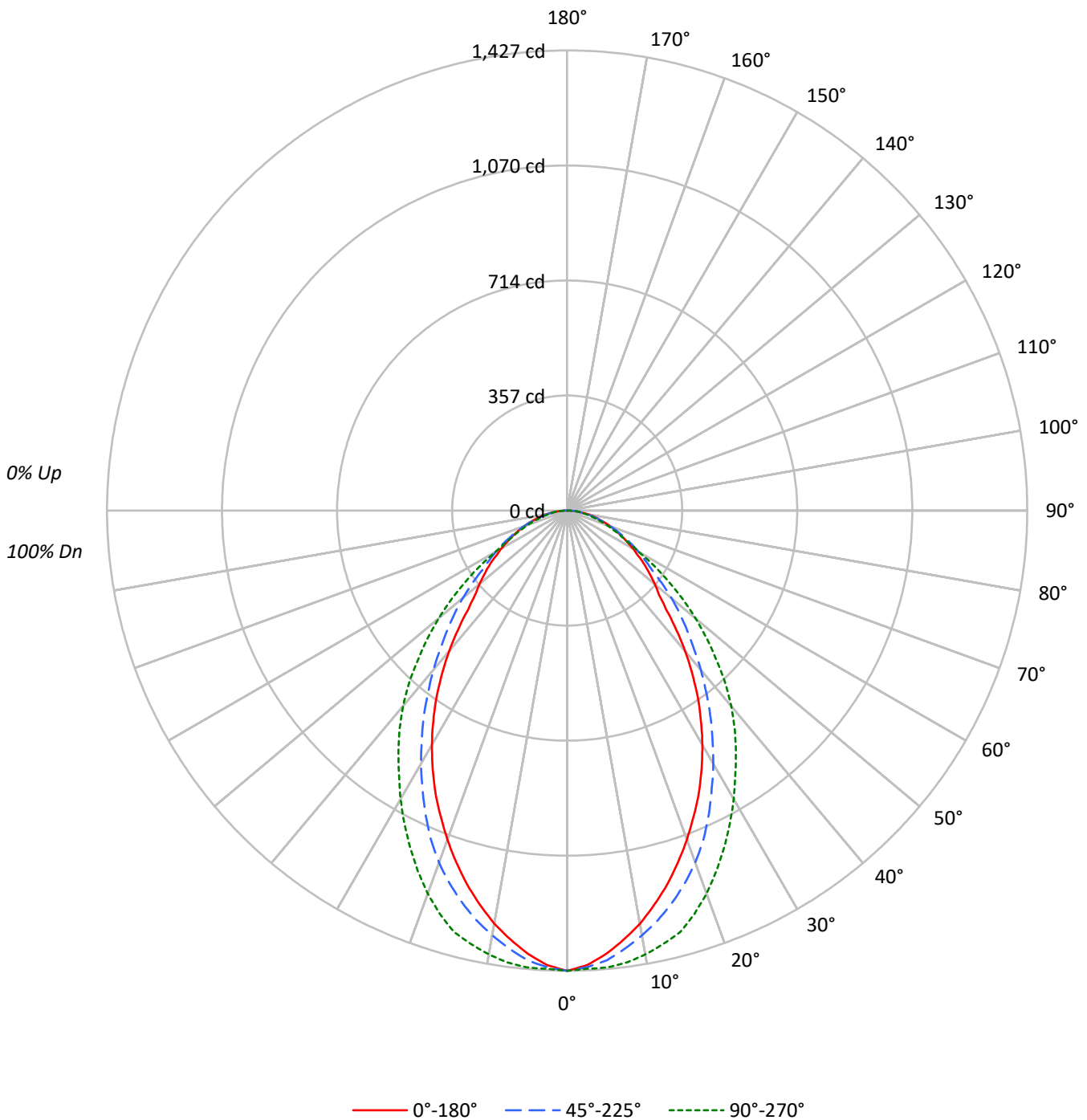
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2507.7 lumens  
Efficiency: N/A  
Efficacy: 71.6 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): 35  
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	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	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°	16758	16758	16758
5°	16271	16503	16764
10°	15508	15948	16664
15°	14587	15304	16453
20°	13567	14518	15792
25°	12524	13462	14926
30°	11373	12290	14005
35°	10123	11091	13081
40°	8736	9884	12123
45°	7220	8750	10870
50°	6483	7718	9490
55°	6009	6588	7870
60°	5538	6000	6029
65°	5154	5426	5051
70°	4848	4934	4429
75°	4569	4401	3902
80°	4321	3990	3652
85°	4136	4473	4136

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10870 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.2	5.3
10°-20°	356.1	14.2
20°-30°	481.7	19.2
30°-40°	495.0	19.7
40°-50°	415.8	16.6
50°-60°	298.1	11.9
60°-70°	189.8	7.6
70°-80°	104.3	4.2
80°-90°	34.8	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°	970.0	38.7
0°-40°	1465.1	58.4
0°-60°	2178.9	86.9
0°-90°	2507.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2507.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1427	1427	1427	1427	1427	
5°	1380	1405	1400	1410	1422	129
15°	1200	1233	1259	1313	1353	336
25°	967	1003	1039	1096	1152	443
35°	706	744	774	842	912	439
45°	435	473	527	603	655	343
55°	294	300	322	365	384	262
65°	186	196	195	184	182	185
75°	101	110	97	90	86	107
85°	31	32	33	34	31	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1427.1	1427.1	1427.1	1427.1	1427.1
2.5°	1411.1	1430.8	1417.3	1418.5	1422.2
5°	1380.4	1405.0	1400.1	1409.9	1422.2
7.5°	1342.4	1369.4	1370.6	1394.0	1413.6
10°	1300.6	1328.9	1337.5	1373.1	1397.6
12.5°	1251.5	1282.2	1300.6	1344.8	1376.8
15°	1199.9	1233.1	1258.9	1312.9	1353.4
17.5°	1143.4	1179.0	1212.2	1269.9	1311.7
20°	1085.7	1123.8	1161.8	1215.9	1263.8
22.5°	1025.5	1064.8	1104.1	1156.9	1209.7
25°	966.6	1003.4	1039.0	1095.5	1152.0
27.5°	902.7	940.8	971.5	1034.1	1093.1
30°	838.8	876.9	906.4	971.5	1032.9
32.5°	772.5	811.8	838.8	906.4	970.2
35°	706.2	744.3	773.7	842.5	912.5
37.5°	636.2	677.9	707.4	784.8	853.6
40°	569.9	609.2	644.8	725.8	790.9
42.5°	501.1	541.6	582.1	665.7	725.8
45°	434.8	472.8	526.9	603.0	654.6
47.5°	386.9	411.4	474.1	537.9	587.1
50°	354.9	364.8	422.5	479.0	519.5
52.5°	323.0	330.4	369.7	421.3	452.0
55°	293.5	299.7	321.8	364.8	384.4
57.5°	261.6	267.7	286.2	310.7	321.8
60°	235.8	240.7	255.5	259.1	256.7
62.5°	210.0	217.4	224.8	216.2	212.5
65°	185.5	196.5	195.3	184.2	181.8
67.5°	163.3	174.4	168.3	157.2	153.5
70°	141.2	152.3	143.7	132.6	129.0
72.5°	120.4	132.6	119.1	109.3	106.8
75°	100.7	110.5	97.0	89.7	86.0
77.5°	82.3	89.7	77.4	71.2	68.8
80°	63.9	68.8	59.0	55.3	54.0
82.5°	46.7	49.1	43.0	45.4	44.2
85°	30.7	31.9	33.2	34.4	30.7
87.5°	14.7	20.9	20.9	19.7	16.0
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	16.98	18.44	17.34	18.75	19.07	18.05	19.51	18.41	19.82	20.14
	3H	18.68	19.99	19.05	20.31	20.68	19.13	20.44	19.51	20.77	21.13
	4H	19.33	20.56	19.73	20.91	21.29	19.53	20.76	19.93	21.11	21.49
	6H	19.83	20.97	20.25	21.33	21.73	19.84	20.98	20.26	21.34	21.74
	8H	20.01	21.08	20.43	21.47	21.88	19.98	21.06	20.41	21.45	21.85
	12H	20.13	21.16	20.56	21.55	21.97	20.10	21.13	20.53	21.51	21.94
4H	2H	17.58	18.81	17.98	19.16	19.54	18.45	19.68	18.85	20.03	20.41
	3H	19.51	20.52	19.92	20.93	21.33	19.77	20.79	20.18	21.19	21.59
	4H	20.32	21.23	20.75	21.65	22.09	20.29	21.20	20.72	21.62	22.06
	6H	20.97	21.76	21.43	22.21	22.67	20.72	21.52	21.18	21.96	22.42
	8H	21.19	21.93	21.65	22.38	22.85	20.91	21.66	21.38	22.10	22.57
	12H	21.36	22.03	21.84	22.51	22.98	21.09	21.76	21.58	22.24	22.71
8H	4H	20.56	21.30	21.02	21.75	22.21	20.53	21.28	21.00	21.72	22.19
	6H	21.34	21.96	21.84	22.45	22.93	21.08	21.70	21.58	22.19	22.67
	8H	21.66	22.21	22.17	22.72	23.21	21.36	21.91	21.87	22.42	22.91
	12H	21.93	22.42	22.44	22.91	23.47	21.65	22.14	22.16	22.63	23.20
12H	4H	20.57	21.23	21.05	21.71	22.18	20.56	21.22	21.04	21.70	22.18
	6H	21.38	21.93	21.89	22.44	22.93	21.13	21.69	21.65	22.20	22.69
	8H	21.75	22.24	22.27	22.74	23.30	21.48	21.96	21.99	22.46	23.02