

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: P1055562

Luminaire Tested: S123R3DR-S1000D927-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055562  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123R3DR-S1000D927-X4F0-XX-UDD-F-W  
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

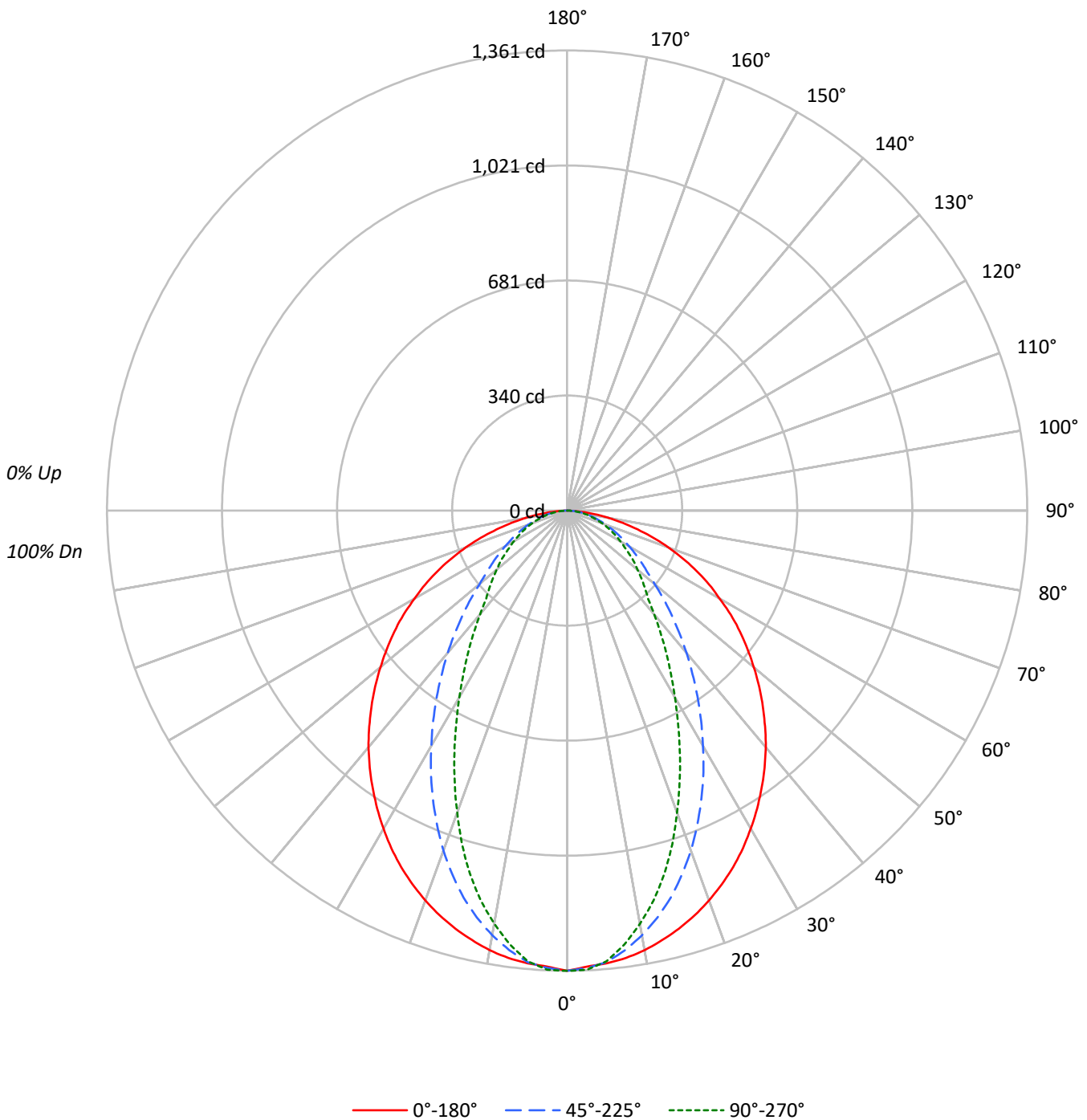
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2387.1 lumens  
Efficiency: N/A  
Efficacy: 68.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02  
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.7  
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

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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	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	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

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

	0°	45°	90°
0°	16410	16410	16410
5°	16263	16226	16189
10°	16165	15616	15192
15°	15972	14791	13876
20°	15739	13727	12199
25°	15466	12499	10496
30°	15122	11182	8872
35°	14758	9889	7492
40°	14388	8636	6297
45°	13956	7446	5555
50°	13518	6340	5098
55°	13116	5650	4708
60°	12568	5105	4393
65°	12053	4676	4125
70°	11231	4308	3874
75°	10052	3983	3652
80°	8623	3673	3395
85°	6059	3375	3237

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13956 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.2	5.3
10°-20°	333.8	14.0
20°-30°	439.7	18.4
30°-40°	446.3	18.7
40°-50°	387.9	16.3
50°-60°	304.0	12.7
60°-70°	206.5	8.7
70°-80°	111.9	4.7
80°-90°	30.8	1.3
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°	899.7	37.7
0°-40°	1346.0	56.4
0°-60°	2037.9	85.4
0°-90°	2387.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2387.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1361	1361	1361	1361	1361	
5°	1344	1360	1341	1328	1338	128
15°	1280	1261	1185	1127	1112	361
25°	1163	1092	940	822	789	535
35°	1003	884	672	544	509	627
45°	818	657	437	337	326	632
55°	624	434	269	229	224	557
65°	422	234	164	147	145	417
75°	216	108	86	79	78	230
85°	44	26	24	22	23	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1361.1	1361.1	1361.1	1361.1	1361.1
2.5°	1349.9	1367.2	1353.9	1355.0	1359.0
5°	1343.8	1360.1	1340.7	1328.5	1337.7
7.5°	1334.6	1346.8	1311.2	1291.8	1294.9
10°	1320.4	1324.4	1275.6	1245.0	1240.9
12.5°	1301.0	1293.9	1232.8	1188.0	1180.9
15°	1279.6	1261.3	1185.0	1126.9	1111.7
17.5°	1255.2	1224.7	1129.0	1057.7	1034.3
20°	1226.7	1183.9	1069.9	979.3	950.8
22.5°	1196.2	1141.2	1005.8	898.9	869.4
25°	1162.6	1092.3	939.6	822.5	789.0
27.5°	1125.9	1043.5	872.4	747.2	709.5
30°	1086.2	992.6	803.2	673.9	637.3
32.5°	1045.5	938.6	737.0	605.7	570.1
35°	1002.7	883.6	671.9	543.6	509.0
37.5°	959.0	827.6	608.8	484.6	452.0
40°	914.2	770.6	548.7	429.6	400.1
42.5°	866.3	713.6	490.7	377.7	355.3
45°	818.5	656.6	436.7	337.0	325.8
47.5°	770.6	598.6	385.8	308.5	298.3
50°	720.7	542.6	338.0	282.0	271.8
52.5°	671.9	487.6	298.3	256.5	249.4
55°	624.0	433.7	268.8	229.1	224.0
57.5°	574.2	380.7	239.2	207.7	201.6
60°	521.2	329.8	211.7	185.3	182.2
62.5°	473.4	282.0	187.3	165.9	162.9
65°	422.5	234.1	163.9	146.6	144.6
67.5°	370.6	194.4	142.5	128.3	127.3
70°	318.6	163.9	122.2	111.0	109.9
72.5°	267.7	135.4	102.8	95.7	93.7
75°	215.8	107.9	85.5	79.4	78.4
77.5°	169.0	83.5	68.2	64.1	63.1
80°	124.2	62.1	52.9	49.9	48.9
82.5°	81.4	42.8	37.7	35.6	35.6
85°	43.8	26.5	24.4	22.4	23.4
87.5°	15.3	11.2	11.2	10.2	11.2
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	20.28	21.77	20.64	22.08	22.40	15.43	16.92	15.79	17.23	17.55
	3H	22.17	23.50	22.54	23.83	24.19	17.06	18.40	17.43	18.72	19.09
	4H	22.92	24.18	23.32	24.53	24.91	17.69	18.95	18.09	19.30	19.68
	6H	23.49	24.65	23.90	25.01	25.41	18.18	19.34	18.60	19.71	20.10
	8H	23.66	24.76	24.09	25.15	25.55	18.35	19.46	18.78	19.85	20.25
	12H	23.76	24.81	24.19	25.20	25.62	18.48	19.53	18.91	19.92	20.35
4H	2H	20.32	21.58	20.72	21.93	22.31	16.16	17.41	16.56	17.76	18.14
	3H	22.34	23.39	22.75	23.79	24.19	17.98	19.02	18.39	19.42	19.82
	4H	23.16	24.10	23.59	24.51	24.95	18.72	19.66	19.16	20.08	20.52
	6H	23.84	24.66	24.30	25.10	25.56	19.33	20.15	19.79	20.59	21.05
	8H	24.07	24.84	24.54	25.28	25.75	19.55	20.31	20.01	20.76	21.22
	12H	24.22	24.91	24.71	25.39	25.86	19.72	20.40	20.20	20.88	21.35
8H	4H	23.18	23.95	23.65	24.39	24.86	19.11	19.87	19.57	20.32	20.78
	6H	23.91	24.54	24.41	25.04	25.51	19.84	20.47	20.33	20.96	21.44
	8H	24.18	24.75	24.70	25.26	25.75	20.12	20.69	20.64	21.20	21.69
	12H	24.39	24.89	24.90	25.38	25.95	20.37	20.87	20.88	21.36	21.92
12H	4H	23.17	23.85	23.65	24.33	24.80	19.16	19.84	19.64	20.32	20.79
	6H	23.90	24.46	24.41	24.97	25.46	19.92	20.48	20.43	20.99	21.48
	8H	24.20	24.70	24.71	25.19	25.76	20.27	20.76	20.78	21.26	21.82