

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: P1055163

Luminaire Tested: S122R3DR-S1005D935-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055163  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S1005D935-X4F0-XX-UDD-F-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

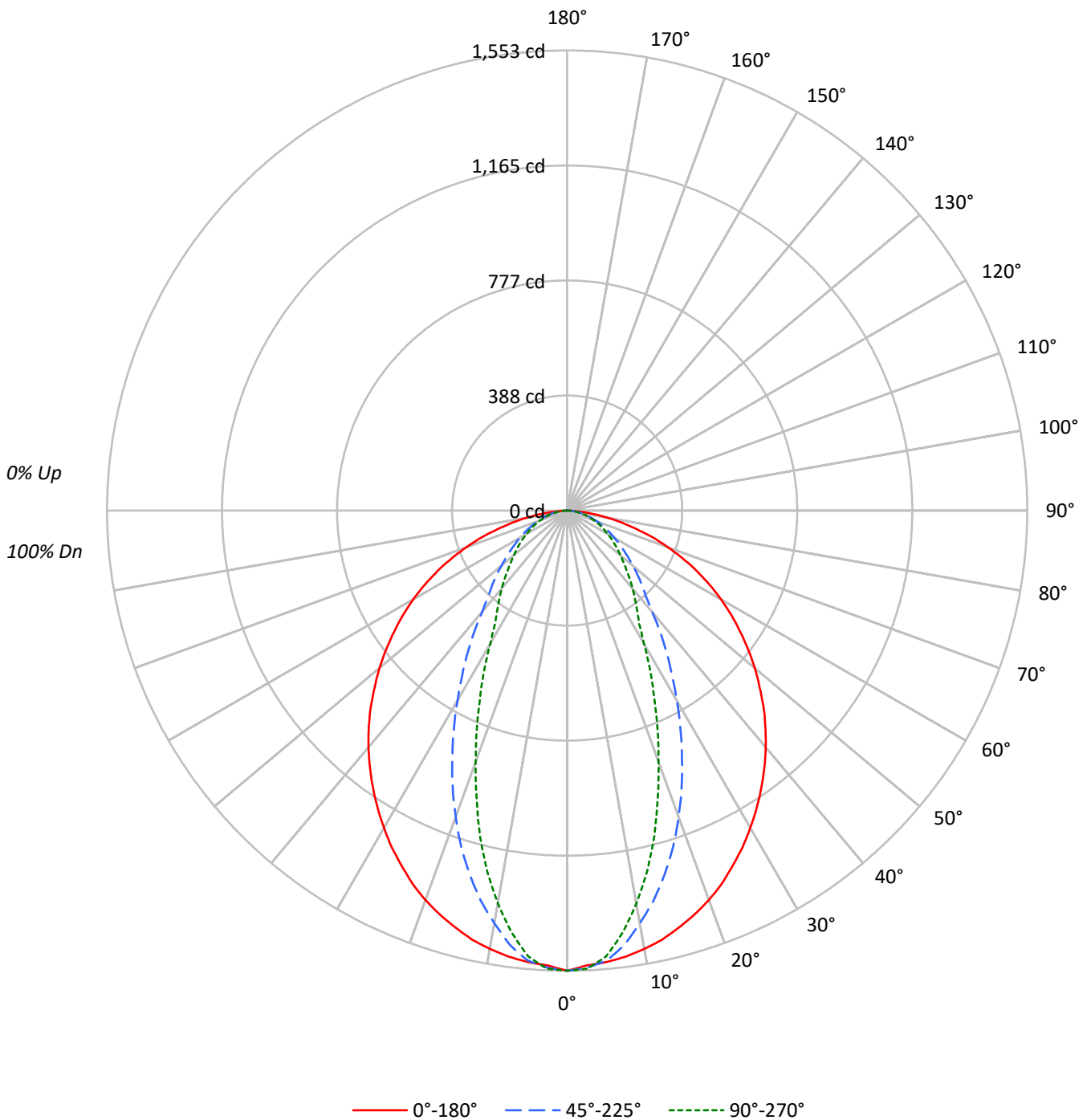
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2349.0 lumens  
Efficiency: N/A  
Efficacy: 56.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.9  
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	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	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	29423	29423	29423
5°	29092	28993	28721
10°	28903	27205	25906
15°	28576	24934	22286
20°	28196	22174	18196
25°	27634	19165	14522
30°	27044	16193	11334
35°	26429	13544	9520
40°	25788	10984	8478
45°	25119	9603	7585
50°	24381	8498	6927
55°	23548	7676	6434
60°	22731	6987	6002
65°	21653	6402	5649
70°	20069	5971	5323
75°	17773	5417	5036
80°	15155	5095	4681
85°	10434	4521	4239

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25119 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.3	6.1
10°-20°	359.3	15.3
20°-30°	442.7	18.8
30°-40°	424.8	18.1
40°-50°	366.4	15.6
50°-60°	284.2	12.1
60°-70°	194.6	8.3
70°-80°	105.7	4.5
80°-90°	29.0	1.2
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°	944.4	40.2
0°-40°	1369.1	58.3
0°-60°	2019.8	86.0
0°-90°	2349.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2349.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1553	1553	1553	1553	1553	
5°	1530	1552	1524	1505	1510	145
15°	1457	1413	1271	1167	1136	411
25°	1322	1180	917	748	695	609
35°	1143	906	586	436	412	715
45°	938	631	358	296	283	723
55°	713	379	232	201	195	638
65°	483	206	143	130	126	477
75°	243	95	74	70	69	260
85°	48	23	21	21	20	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1553.0	1553.0	1553.0	1553.0	1553.0
2.5°	1536.1	1562.1	1543.9	1543.9	1547.8
5°	1529.7	1551.7	1524.5	1505.0	1510.2
7.5°	1518.0	1533.5	1479.0	1437.5	1436.2
10°	1502.4	1503.7	1414.1	1359.5	1346.6
12.5°	1482.9	1462.1	1347.9	1266.1	1246.6
15°	1456.9	1412.8	1271.2	1167.4	1136.2
17.5°	1429.7	1362.1	1189.4	1059.6	1016.7
20°	1398.5	1301.1	1099.8	951.8	902.5
22.5°	1363.4	1242.7	1010.2	847.9	796.0
25°	1321.9	1180.4	916.8	747.9	694.7
27.5°	1281.6	1116.7	827.2	659.6	605.1
30°	1236.2	1047.9	740.2	575.2	518.1
32.5°	1190.7	977.8	659.6	494.7	451.9
35°	1142.7	906.4	585.6	436.3	411.6
37.5°	1093.4	836.2	515.5	397.3	375.3
40°	1042.7	766.1	444.1	359.7	342.8
42.5°	990.8	697.3	394.7	328.5	312.9
45°	937.5	631.1	358.4	296.1	283.1
47.5°	880.4	564.9	323.3	268.8	257.1
50°	827.2	501.2	288.3	244.1	235.0
52.5°	770.0	438.9	259.7	222.0	214.3
55°	712.9	379.2	232.4	201.3	194.8
57.5°	657.0	322.0	206.5	181.8	176.6
60°	599.9	276.6	184.4	163.6	158.4
62.5°	541.5	240.2	163.6	146.7	141.5
65°	483.0	206.5	142.8	129.9	126.0
67.5°	422.0	174.0	124.7	114.3	111.7
70°	362.3	145.4	107.8	98.7	96.1
72.5°	303.9	118.2	90.9	84.4	81.8
75°	242.8	94.8	74.0	70.1	68.8
77.5°	189.6	74.0	59.7	57.1	55.8
80°	138.9	54.5	46.7	44.1	42.9
82.5°	92.2	37.7	33.8	32.5	31.2
85°	48.0	23.4	20.8	20.8	19.5
87.5°	15.6	10.4	10.4	10.4	9.1
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	21.36	22.83	21.72	23.14	23.45	16.16	17.63	16.53	17.95	18.26
	3H	23.69	25.00	24.07	25.33	25.69	17.81	19.13	18.19	19.46	19.82
	4H	24.58	25.82	24.98	26.17	26.55	18.45	19.68	18.85	20.03	20.41
	6H	25.25	26.39	25.66	26.75	27.15	18.94	20.08	19.35	20.45	20.84
	8H	25.45	26.54	25.88	26.93	27.33	19.11	20.20	19.54	20.59	20.99
	12H	25.57	26.61	26.00	26.99	27.42	19.23	20.27	19.66	20.65	21.08
4H	2H	21.37	22.61	21.77	22.96	23.34	16.88	18.11	17.28	18.46	18.84
	3H	23.79	24.81	24.20	25.21	25.61	18.73	19.75	19.14	20.15	20.56
	4H	24.72	25.64	25.15	26.06	26.49	19.47	20.40	19.91	20.81	21.25
	6H	25.49	26.30	25.95	26.74	27.20	20.09	20.89	20.55	21.33	21.80
	8H	25.76	26.51	26.23	26.96	27.43	20.31	21.06	20.77	21.50	21.97
	12H	25.94	26.61	26.42	27.09	27.56	20.47	21.14	20.95	21.62	22.09
8H	4H	24.71	25.46	25.17	25.90	26.37	19.85	20.60	20.32	21.05	21.51
	6H	25.52	26.13	26.01	26.63	27.10	20.59	21.21	21.09	21.70	22.18
	8H	25.82	26.37	26.33	26.88	27.37	20.89	21.44	21.40	21.95	22.44
	12H	26.05	26.54	26.56	27.03	27.60	21.13	21.62	21.64	22.11	22.68
12H	4H	24.69	25.36	25.17	25.84	26.31	19.91	20.58	20.39	21.06	21.53
	6H	25.49	26.05	26.01	26.56	27.05	20.68	21.23	21.19	21.74	22.23
	8H	25.83	26.32	26.34	26.81	27.37	21.03	21.52	21.54	22.01	22.58