

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: P1055143

Luminaire Tested: S122R3DRP-S1005D830-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055143  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DRP-S1005D830-X4F0-XX-UDD-F-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

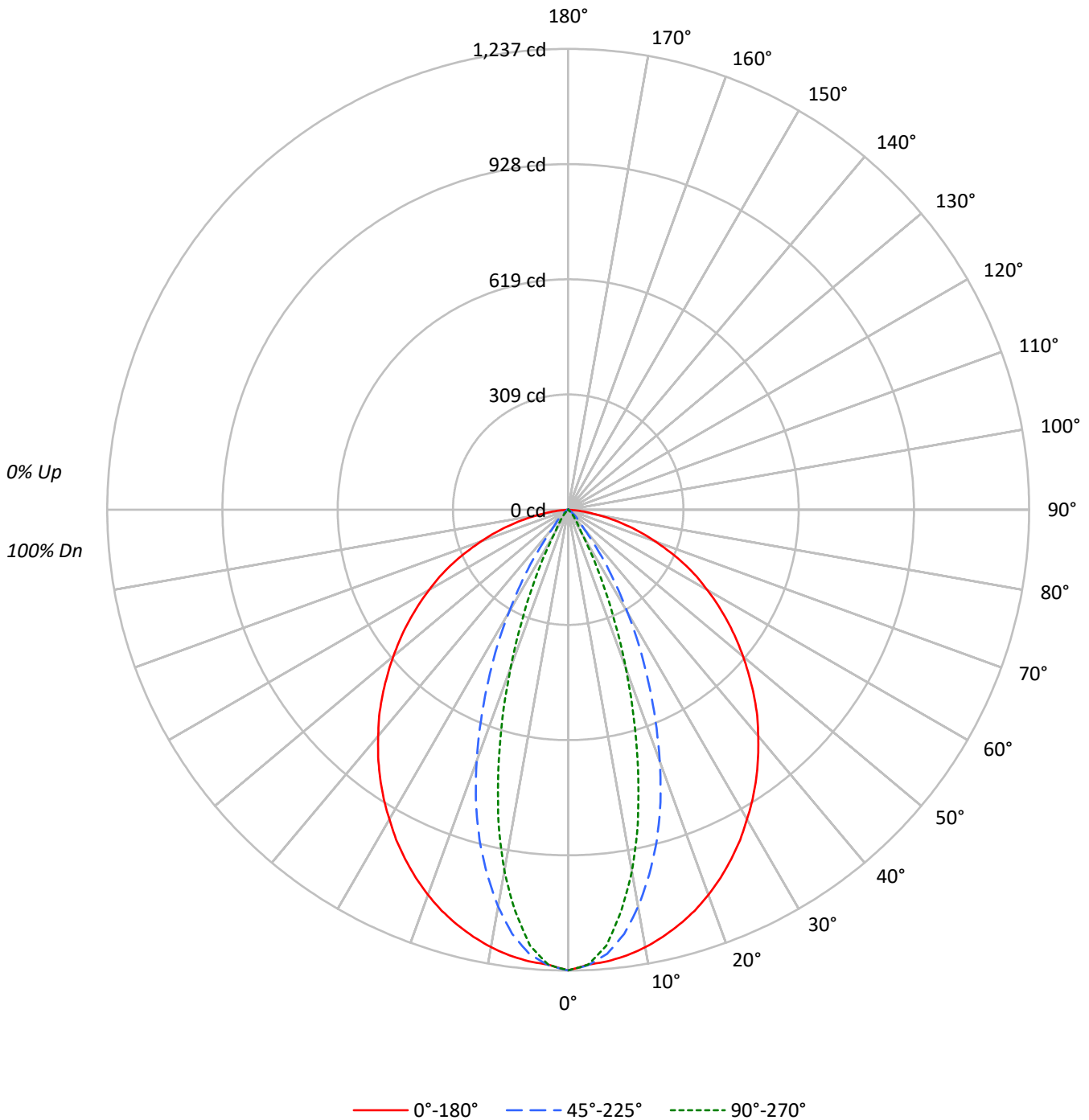
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1125.1 lumens  
Efficiency: N/A  
Efficacy: 26.9 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7  
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	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	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	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	66	63	61					61			
6	82	72	65	60	80	71	64	59	69	63	59	68	62	59	66	62	58	56					56			
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52					52			
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49					49			
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	48	44	43					43			

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

	0°	45°	90°
0°	23430	23430	23430
5°	23141	22763	22331
10°	22943	20812	18951
15°	22611	18012	14191
20°	22182	14474	9085
25°	21634	10609	4666
30°	20991	6935	1525
35°	20351	3846	888
40°	19617	1546	492
45°	18892	1029	190
50°	18059	587	83
55°	17232	281	46
60°	16320	106	0
65°	15359	63	0
70°	13782	78	0
75°	11866	102	0
80°	8990	0	0
85°	3717	304	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 18892 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.9	9.9
10°-20°	257.6	22.9
20°-30°	261.5	23.2
30°-40°	196.3	17.4
40°-50°	137.4	12.2
50°-60°	84.1	7.5
60°-70°	50.1	4.5
70°-80°	23.1	2.1
80°-90°	4.1	0.4
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°	630.0	56.0
0°-40°	826.3	73.4
0°-60°	1047.8	93.1
0°-90°	1125.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1125.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1217	1228	1197	1174	1174	115
15°	1153	1090	918	778	724	325
25°	1035	853	508	290	223	476
35°	880	573	166	50	38	550
45°	705	303	38	11	7	543
55°	522	92	8	3	1	466
65°	343	27	1	1	0	338
75°	162	3	1	1	0	172
85°	17	0	1	1	0	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1236.7	1236.7	1236.7	1236.7	1236.7
2.5°	1222.5	1241.0	1223.9	1221.1	1222.5
5°	1216.8	1228.2	1196.9	1174.2	1174.2
7.5°	1206.9	1206.9	1148.6	1101.7	1087.5
10°	1192.6	1177.0	1081.8	1006.4	985.1
12.5°	1174.2	1137.2	1003.6	897.0	862.9
15°	1152.8	1090.3	918.3	777.6	723.5
17.5°	1128.7	1037.7	823.1	648.2	585.7
20°	1100.2	980.8	717.9	516.0	450.6
22.5°	1069.0	918.3	611.2	398.0	328.4
25°	1034.9	852.9	507.5	290.0	223.2
27.5°	999.3	784.7	412.2	199.0	136.5
30°	959.5	713.6	317.0	118.0	69.7
32.5°	921.1	645.4	237.4	64.0	51.2
35°	879.9	572.9	166.3	49.8	38.4
37.5°	837.3	504.6	102.3	37.0	28.4
40°	793.2	435.0	62.5	27.0	19.9
42.5°	750.6	369.6	49.8	18.5	12.8
45°	705.1	302.8	38.4	11.4	7.1
47.5°	658.2	241.7	28.4	7.1	4.3
50°	612.7	187.6	19.9	4.3	2.8
52.5°	567.2	137.9	12.8	2.8	1.4
55°	521.7	92.4	8.5	2.8	1.4
57.5°	476.2	65.4	5.7	1.4	1.4
60°	430.7	51.2	2.8	1.4	0.0
62.5°	388.1	39.8	2.8	1.4	1.4
65°	342.6	27.0	1.4	1.4	0.0
67.5°	294.3	17.1	1.4	1.4	0.0
70°	248.8	10.0	1.4	1.4	0.0
72.5°	204.7	5.7	1.4	1.4	0.0
75°	162.1	2.8	1.4	1.4	0.0
77.5°	120.8	1.4	0.0	1.4	0.0
80°	82.4	0.0	0.0	1.4	0.0
82.5°	48.3	0.0	0.0	1.4	0.0
85°	17.1	0.0	1.4	1.4	0.0
87.5°	0.0	0.0	1.4	1.4	0.0
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	17.17	18.43	17.54	18.74	19.06	0.00	0.00	0.00	0.00	0.00
	3H	20.91	22.03	21.29	22.36	22.73	0.00	0.00	0.00	0.00	0.00
	4H	22.22	23.26	22.63	23.62	24.00	0.00	0.00	0.00	0.00	0.00
	6H	23.08	24.03	23.49	24.40	24.80	0.00	0.00	0.00	0.00	0.00
	8H	23.29	24.19	23.72	24.59	24.99	0.00	0.00	0.00	0.00	0.00
	12H	23.35	24.22	23.79	24.60	25.03	0.00	0.00	0.00	0.00	0.00
4H	2H	16.92	17.96	17.33	18.32	18.70	0.00	0.00	0.00	0.00	0.00
	3H	20.67	21.52	21.08	21.92	22.33	0.00	0.00	0.00	0.00	0.00
	4H	21.96	22.72	22.40	23.14	23.59	0.00	0.00	0.00	0.00	0.00
	6H	22.88	23.54	23.34	23.98	24.45	0.00	0.00	0.00	0.00	0.00
	8H	23.14	23.75	23.61	24.20	24.67	0.00	0.00	0.00	0.00	0.00
	12H	23.24	23.78	23.73	24.26	24.74	0.00	0.00	0.00	0.00	0.00
8H	4H	21.82	22.43	22.29	22.88	23.35	0.00	0.00	0.00	0.00	0.00
	6H	22.72	23.21	23.22	23.71	24.19	0.00	0.00	0.00	0.00	0.00
	8H	22.97	23.42	23.50	23.94	24.43	0.00	0.00	0.00	0.00	0.00
	12H	23.09	23.48	23.61	23.98	24.55	0.00	0.00	0.00	0.00	0.00
12H	4H	21.77	22.31	22.26	22.79	23.27	0.00	0.00	0.00	0.00	0.00
	6H	22.65	23.10	23.18	23.61	24.11	0.00	0.00	0.00	0.00	0.00
	8H	22.93	23.32	23.45	23.81	24.39	0.00	0.00	0.00	0.00	0.00