

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: P1055146

Luminaire Tested: S122R3DR-S1005D835-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055146  
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: S122R3DR-S1005D835-X4F0-XX-UDD-F-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

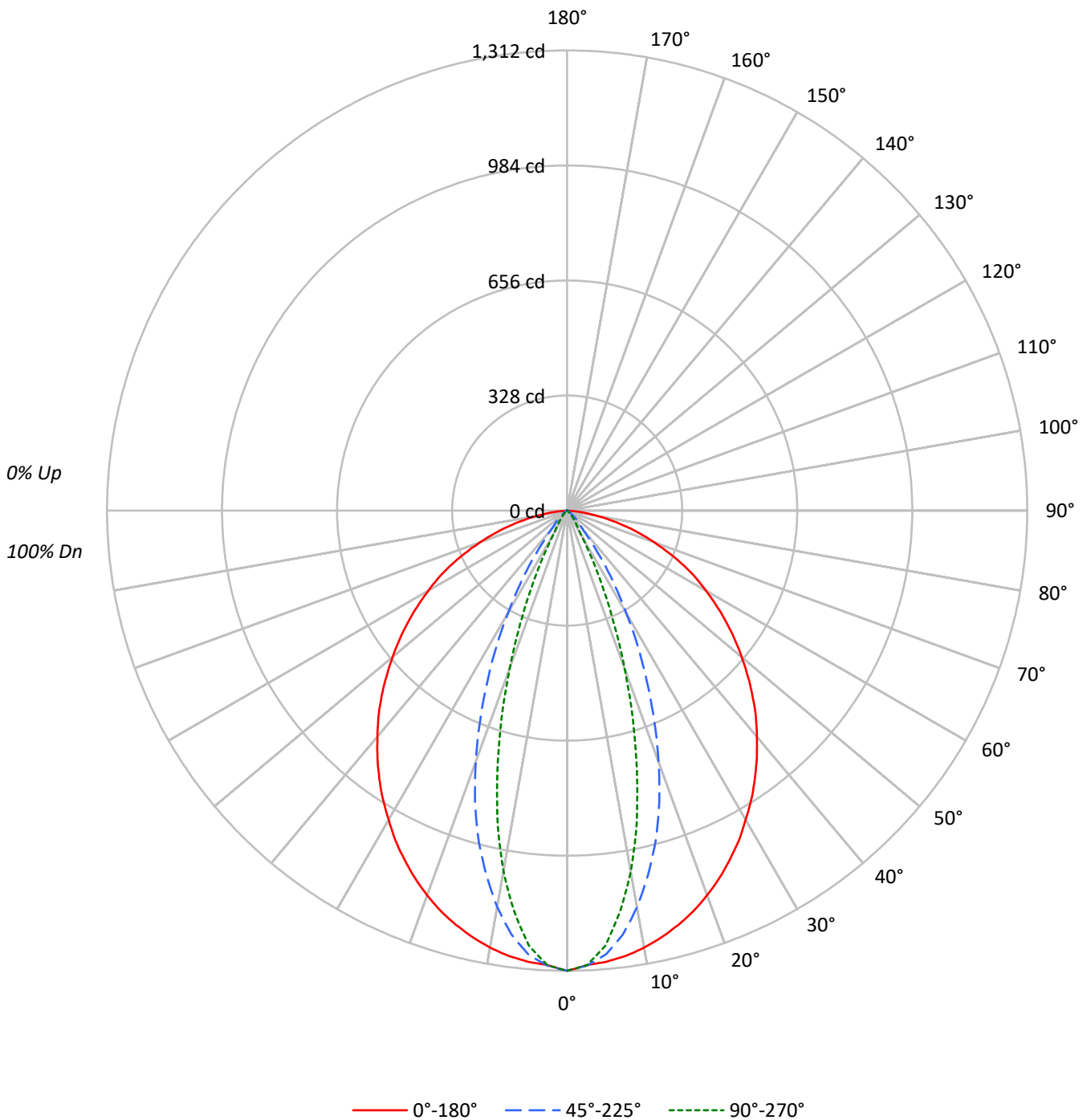
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1193.7 lumens  
Efficiency: N/A  
Efficacy: 28.5 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 (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	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	47	44	43					43			

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

	0°	45°	90°
0°	24859	24859	24859
5°	24553	24151	23691
10°	24342	22080	20108
15°	23990	19110	15058
20°	23535	15355	9639
25°	22951	11255	4950
30°	22271	7357	1617
35°	21593	4082	941
40°	20814	1642	522
45°	20042	1090	201
50°	19158	622	88
55°	18283	297	50
60°	17317	114	0
65°	16296	67	0
70°	14618	83	0
75°	12583	110	0
80°	9547	0	0
85°	3935	326	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 20042 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.6	9.9
10°-20°	273.3	22.9
20°-30°	277.5	23.2
30°-40°	208.2	17.4
40°-50°	145.8	12.2
50°-60°	89.2	7.5
60°-70°	53.1	4.5
70°-80°	24.5	2.1
80°-90°	4.4	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°	668.4	56.0
0°-40°	876.6	73.4
0°-60°	1111.7	93.1
0°-90°	1193.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1193.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1312	1312	1312	1312	1312	
5°	1291	1303	1270	1246	1246	122
15°	1223	1157	974	825	768	345
25°	1098	905	538	308	237	505
35°	934	608	176	53	41	583
45°	748	321	41	12	8	577
55°	554	98	9	3	2	495
65°	364	29	2	2	0	358
75°	172	3	2	2	0	183
85°	18	0	2	2	0	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1312.1	1312.1	1312.1	1312.1	1312.1
2.5°	1297.0	1316.6	1298.5	1295.5	1297.0
5°	1291.0	1303.1	1269.9	1245.7	1245.7
7.5°	1280.4	1280.4	1218.6	1168.8	1153.7
10°	1265.3	1248.8	1147.7	1067.8	1045.2
12.5°	1245.7	1206.5	1064.8	951.7	915.5
15°	1223.1	1156.8	974.3	825.0	767.7
17.5°	1197.5	1101.0	873.2	687.7	621.4
20°	1167.3	1040.6	761.6	547.5	478.1
22.5°	1134.1	974.3	648.5	422.3	348.4
25°	1097.9	904.9	538.4	307.7	236.8
27.5°	1060.2	832.5	437.4	211.1	144.8
30°	1018.0	757.1	336.3	125.2	73.9
32.5°	977.3	684.7	251.9	67.9	54.3
35°	933.6	607.8	176.5	52.8	40.7
37.5°	888.3	535.4	108.6	39.2	30.2
40°	841.6	461.5	66.4	28.7	21.1
42.5°	796.3	392.1	52.8	19.6	13.6
45°	748.0	321.2	40.7	12.1	7.5
47.5°	698.3	256.4	30.2	7.5	4.5
50°	650.0	199.1	21.1	4.5	3.0
52.5°	601.8	146.3	13.6	3.0	1.5
55°	553.5	98.0	9.0	3.0	1.5
57.5°	505.2	69.4	6.0	1.5	1.5
60°	457.0	54.3	3.0	1.5	0.0
62.5°	411.7	42.2	3.0	1.5	1.5
65°	363.5	28.7	1.5	1.5	0.0
67.5°	312.2	18.1	1.5	1.5	0.0
70°	263.9	10.6	1.5	1.5	0.0
72.5°	217.2	6.0	1.5	1.5	0.0
75°	171.9	3.0	1.5	1.5	0.0
77.5°	128.2	1.5	0.0	1.5	0.0
80°	87.5	0.0	0.0	1.5	0.0
82.5°	51.3	0.0	0.0	1.5	0.0
85°	18.1	0.0	1.5	1.5	0.0
87.5°	0.0	0.0	1.5	1.5	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	17.38	18.64	17.74	18.95	19.26	0.00	0.00	0.00	0.00	0.00
	3H	21.12	22.23	21.50	22.57	22.93	0.00	0.00	0.00	0.00	0.00
	4H	22.43	23.47	22.83	23.82	24.20	0.00	0.00	0.00	0.00	0.00
	6H	23.28	24.24	23.70	24.61	25.00	0.00	0.00	0.00	0.00	0.00
	8H	23.50	24.40	23.93	24.79	25.20	0.00	0.00	0.00	0.00	0.00
	12H	23.56	24.42	23.99	24.81	25.24	0.00	0.00	0.00	0.00	0.00
4H	2H	17.13	18.17	17.53	18.52	18.91	0.00	0.00	0.00	0.00	0.00
	3H	20.87	21.72	21.28	22.13	22.53	0.00	0.00	0.00	0.00	0.00
	4H	22.17	22.93	22.60	23.35	23.79	0.00	0.00	0.00	0.00	0.00
	6H	23.09	23.74	23.55	24.19	24.66	0.00	0.00	0.00	0.00	0.00
	8H	23.34	23.96	23.81	24.40	24.88	0.00	0.00	0.00	0.00	0.00
	12H	23.45	23.98	23.93	24.47	24.94	0.00	0.00	0.00	0.00	0.00
8H	4H	22.02	22.63	22.49	23.08	23.55	0.00	0.00	0.00	0.00	0.00
	6H	22.92	23.42	23.43	23.92	24.40	0.00	0.00	0.00	0.00	0.00
	8H	23.18	23.62	23.70	24.14	24.63	0.00	0.00	0.00	0.00	0.00
	12H	23.30	23.69	23.81	24.18	24.76	0.00	0.00	0.00	0.00	0.00
12H	4H	21.97	22.51	22.46	22.99	23.47	0.00	0.00	0.00	0.00	0.00
	6H	22.86	23.30	23.38	23.82	24.31	0.00	0.00	0.00	0.00	0.00
	8H	23.14	23.53	23.65	24.02	24.59	0.00	0.00	0.00	0.00	0.00