

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: P1055226

Luminaire Tested: S122R3DR-S675D830-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055226  
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-S675D830-X4F0-XX-UDD-F-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

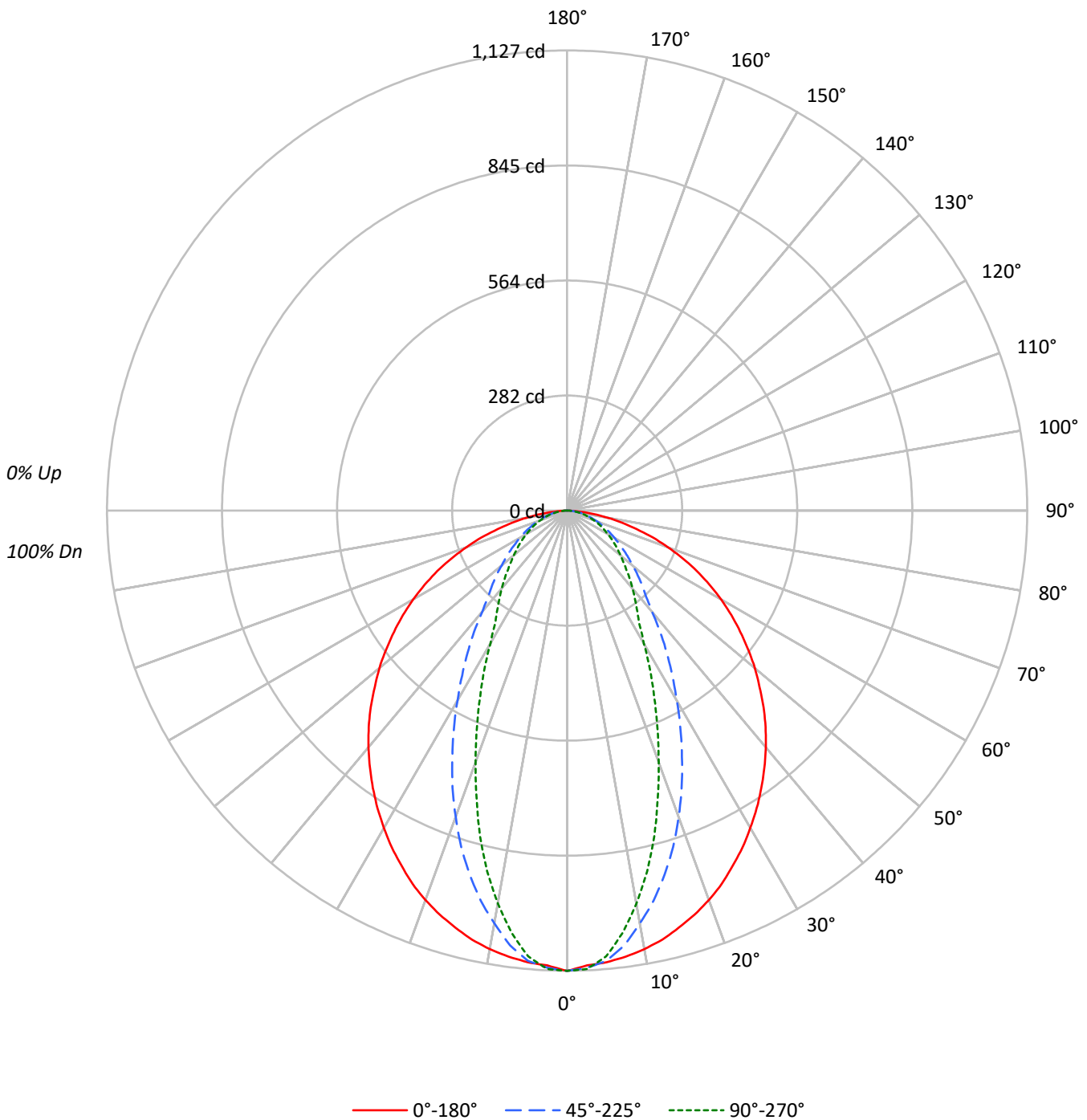
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1705.1 lumens  
Efficiency: N/A  
Efficacy: 64.6 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): 26.4  
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52				52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46				46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32				32

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

	0°	45°	90°
0°	21358	21358	21358
5°	21116	21044	20848
10°	20979	19746	18803
15°	20742	18098	16176
20°	20466	16095	13208
25°	20058	13910	10542
30°	19630	11752	8228
35°	19183	9832	6911
40°	18720	7971	6153
45°	18233	6969	5506
50°	17696	6166	5028
55°	17094	5572	4671
60°	16502	5070	4358
65°	15717	4649	4097
70°	14569	4332	3861
75°	12905	3931	3660
80°	11009	3699	3393
85°	7587	3282	3065

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 18233 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.3	6.1
10°-20°	260.8	15.3
20°-30°	321.4	18.8
30°-40°	308.3	18.1
40°-50°	265.9	15.6
50°-60°	206.3	12.1
60°-70°	141.3	8.3
70°-80°	76.7	4.5
80°-90°	21.0	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°	685.5	40.2
0°-40°	993.8	58.3
0°-60°	1466.1	86.0
0°-90°	1705.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1705.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1127	1127	1127	1127	1127	
5°	1110	1126	1106	1092	1096	105
15°	1058	1026	923	847	825	298
25°	960	857	665	543	504	442
35°	829	658	425	317	299	519
45°	680	458	260	215	206	524
55°	518	275	169	146	141	463
65°	351	150	104	94	91	346
75°	176	69	54	51	50	189
85°	35	17	15	15	14	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1127.3	1127.3	1127.3	1127.3	1127.3
2.5°	1115.0	1133.9	1120.7	1120.7	1123.5
5°	1110.3	1126.3	1106.5	1092.4	1096.2
7.5°	1101.8	1113.1	1073.6	1043.4	1042.5
10°	1090.5	1091.5	1026.4	986.8	977.4
12.5°	1076.4	1061.3	978.4	919.0	904.8
15°	1057.5	1025.5	922.7	847.3	824.7
17.5°	1037.7	988.7	863.4	769.1	738.0
20°	1015.1	944.4	798.3	690.9	655.1
22.5°	989.7	902.0	733.3	615.5	577.8
25°	959.5	856.8	665.4	542.9	504.3
27.5°	930.3	810.6	600.4	478.8	439.2
30°	897.3	760.6	537.2	417.5	376.1
32.5°	864.3	709.7	478.8	359.1	328.0
35°	829.4	657.9	425.1	316.7	298.8
37.5°	793.6	607.0	374.2	288.4	272.4
40°	756.9	556.1	322.3	261.1	248.8
42.5°	719.2	506.1	286.5	238.5	227.2
45°	680.5	458.1	260.1	214.9	205.5
47.5°	639.0	410.0	234.7	195.1	186.6
50°	600.4	363.8	209.2	177.2	170.6
52.5°	558.9	318.6	188.5	161.2	155.5
55°	517.5	275.2	168.7	146.1	141.4
57.5°	476.9	233.8	149.9	132.0	128.2
60°	435.5	200.8	133.8	118.8	115.0
62.5°	393.0	174.4	118.8	106.5	102.7
65°	350.6	149.9	103.7	94.3	91.4
67.5°	306.3	126.3	90.5	82.9	81.1
70°	263.0	105.6	78.2	71.6	69.7
72.5°	220.6	85.8	66.0	61.3	59.4
75°	176.3	68.8	53.7	50.9	50.0
77.5°	137.6	53.7	43.4	41.5	40.5
80°	100.9	39.6	33.9	32.0	31.1
82.5°	66.9	27.3	24.5	23.6	22.6
85°	34.9	17.0	15.1	15.1	14.1
87.5°	11.3	7.5	7.5	7.5	6.6
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	20.25	21.71	20.61	22.03	22.34	15.05	16.52	15.42	16.83	17.15
	3H	22.58	23.89	22.95	24.22	24.58	16.70	18.02	17.08	18.34	18.71
	4H	23.47	24.71	23.87	25.05	25.43	17.33	18.57	17.74	18.92	19.30
	6H	24.13	25.27	24.55	25.64	26.03	17.83	18.97	18.24	19.34	19.73
	8H	24.34	25.43	24.77	25.82	26.22	18.00	19.08	18.42	19.47	19.87
	12H	24.46	25.49	24.89	25.88	26.31	18.11	19.15	18.54	19.53	19.96
4H	2H	20.26	21.50	20.66	21.85	22.23	15.77	17.00	16.17	17.35	17.73
	3H	22.67	23.70	23.09	24.10	24.50	17.61	18.64	18.03	19.04	19.44
	4H	23.60	24.53	24.04	24.94	25.38	18.36	19.29	18.80	19.70	20.14
	6H	24.38	25.18	24.84	25.63	26.09	18.98	19.78	19.44	20.22	20.68
	8H	24.65	25.40	25.12	25.85	26.31	19.19	19.94	19.66	20.39	20.85
	12H	24.83	25.50	25.31	25.98	26.45	19.35	20.02	19.84	20.50	20.97
8H	4H	23.60	24.35	24.06	24.79	25.26	18.74	19.49	19.21	19.94	20.40
	6H	24.40	25.02	24.90	25.51	25.99	19.48	20.10	19.98	20.59	21.07
	8H	24.71	25.26	25.22	25.77	26.26	19.77	20.33	20.29	20.84	21.33
	12H	24.94	25.43	25.45	25.92	26.48	20.02	20.51	20.53	21.00	21.57
12H	4H	23.58	24.25	24.06	24.73	25.20	18.80	19.47	19.28	19.95	20.42
	6H	24.38	24.93	24.90	25.45	25.93	19.56	20.12	20.08	20.63	21.12
	8H	24.71	25.20	25.23	25.70	26.26	19.92	20.41	20.43	20.90	21.47