

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: P1055224

Luminaire Tested: S122R3DRP-S675D830-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055224  
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-S675D830-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: -

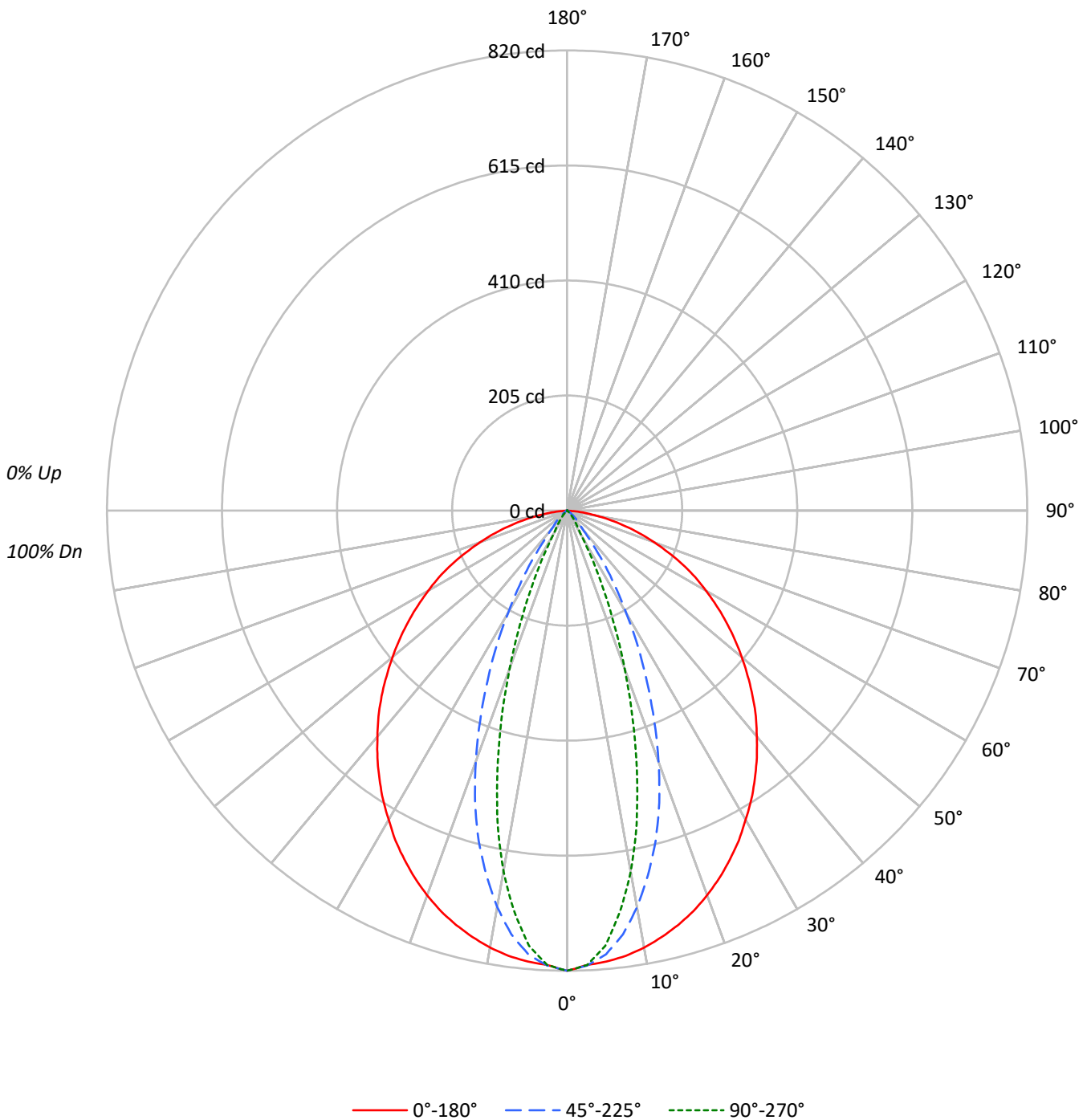
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 746.0 lumens  
Efficiency: N/A  
Efficacy: 28.3 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): 26.4  
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	63	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°	15536	15536	15536
5°	15344	15093	14806
10°	15214	13800	12566
15°	14993	11943	9411
20°	14708	9597	6024
25°	14345	7034	3094
30°	13918	4599	1011
35°	13493	2551	587
40°	13007	1026	326
45°	12526	681	126
50°	11973	389	56
55°	11425	188	30
60°	10822	72	0
65°	10185	40	0
70°	9134	50	0
75°	7869	66	0
80°	5968	0	0
85°	2456	196	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12526 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.5	9.9
10°-20°	170.8	22.9
20°-30°	173.4	23.2
30°-40°	130.1	17.4
40°-50°	91.1	12.2
50°-60°	55.8	7.5
60°-70°	33.2	4.5
70°-80°	15.3	2.1
80°-90°	2.7	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°	417.7	56.0
0°-40°	547.9	73.4
0°-60°	694.8	93.1
0°-90°	746.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	746.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	820	820	820	820	820	
5°	807	814	794	778	778	77
15°	764	723	609	516	480	215
25°	686	566	336	192	148	316
35°	583	380	110	33	25	365
45°	468	201	25	8	5	360
55°	346	61	6	2	1	309
65°	227	18	1	1	0	224
75°	108	2	1	1	0	114
85°	11	0	1	1	0	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	820.0	820.0	820.0	820.0	820.0
2.5°	810.6	822.8	811.5	809.6	810.6
5°	806.8	814.4	793.6	778.5	778.5
7.5°	800.2	800.2	761.6	730.5	721.0
10°	790.8	780.4	717.3	667.3	653.2
12.5°	778.5	754.0	665.4	594.7	572.1
15°	764.4	722.9	608.9	515.6	479.8
17.5°	748.4	688.1	545.7	429.8	388.3
20°	729.5	650.4	476.0	342.1	298.8
22.5°	708.8	608.9	405.3	263.9	217.7
25°	686.2	565.5	336.5	192.3	148.0
27.5°	662.6	520.3	273.3	132.0	90.5
30°	636.2	473.2	210.2	78.2	46.2
32.5°	610.8	427.9	157.4	42.4	33.9
35°	583.4	379.8	110.3	33.0	25.4
37.5°	555.2	334.6	67.9	24.5	18.9
40°	525.9	288.4	41.5	17.9	13.2
42.5°	497.7	245.1	33.0	12.3	8.5
45°	467.5	200.8	25.4	7.5	4.7
47.5°	436.4	160.2	18.9	4.7	2.8
50°	406.2	124.4	13.2	2.8	1.9
52.5°	376.1	91.4	8.5	1.9	0.9
55°	345.9	61.3	5.7	1.9	0.9
57.5°	315.8	43.4	3.8	0.9	0.9
60°	285.6	33.9	1.9	0.9	0.0
62.5°	257.3	26.4	1.9	0.9	0.9
65°	227.2	17.9	0.9	0.9	0.0
67.5°	195.1	11.3	0.9	0.9	0.0
70°	164.9	6.6	0.9	0.9	0.0
72.5°	135.7	3.8	0.9	0.9	0.0
75°	107.5	1.9	0.9	0.9	0.0
77.5°	80.1	0.9	0.0	0.9	0.0
80°	54.7	0.0	0.0	0.9	0.0
82.5°	32.0	0.0	0.0	0.9	0.0
85°	11.3	0.0	0.9	0.9	0.0
87.5°	0.0	0.0	0.9	0.9	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	15.75	17.01	16.11	17.32	17.63	0.00	0.00	0.00	0.00	0.00
	3H	19.48	20.60	19.86	20.93	21.30	0.00	0.00	0.00	0.00	0.00
	4H	20.80	21.84	21.20	22.19	22.57	0.00	0.00	0.00	0.00	0.00
	6H	21.65	22.61	22.07	22.98	23.37	0.00	0.00	0.00	0.00	0.00
	8H	21.86	22.77	22.29	23.16	23.56	0.00	0.00	0.00	0.00	0.00
	12H	21.93	22.79	22.36	23.17	23.60	0.00	0.00	0.00	0.00	0.00
4H	2H	15.50	16.54	15.90	16.89	17.28	0.00	0.00	0.00	0.00	0.00
	3H	19.24	20.09	19.65	20.50	20.90	0.00	0.00	0.00	0.00	0.00
	4H	20.53	21.30	20.97	21.72	22.16	0.00	0.00	0.00	0.00	0.00
	6H	21.45	22.11	21.92	22.56	23.02	0.00	0.00	0.00	0.00	0.00
	8H	21.71	22.32	22.18	22.77	23.24	0.00	0.00	0.00	0.00	0.00
	12H	21.81	22.35	22.30	22.83	23.31	0.00	0.00	0.00	0.00	0.00
8H	4H	20.39	21.00	20.86	21.45	21.92	0.00	0.00	0.00	0.00	0.00
	6H	21.29	21.79	21.79	22.28	22.77	0.00	0.00	0.00	0.00	0.00
	8H	21.55	21.99	22.07	22.51	23.00	0.00	0.00	0.00	0.00	0.00
	12H	21.66	22.05	22.18	22.55	23.12	0.00	0.00	0.00	0.00	0.00
12H	4H	20.34	20.88	20.83	21.36	21.84	0.00	0.00	0.00	0.00	0.00
	6H	21.23	21.67	21.75	22.19	22.68	0.00	0.00	0.00	0.00	0.00
	8H	21.50	21.89	22.02	22.39	22.96	0.00	0.00	0.00	0.00	0.00