

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058520

Luminaire Tested: S122RDR-H865D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058520  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H865D830-X4F0-XX-UDD-BVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

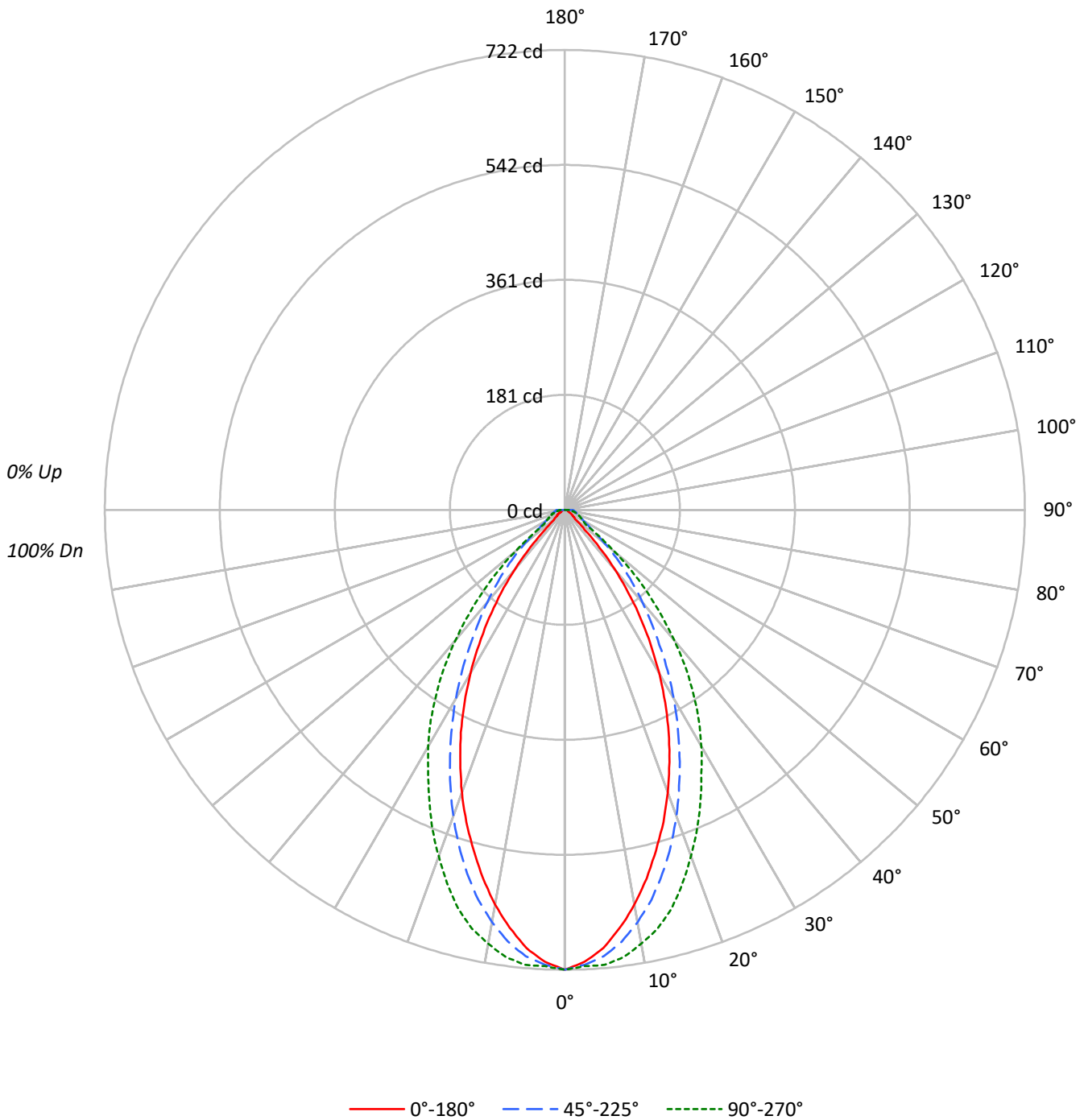
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 785.7 lumens  
Efficiency: N/A  
Efficacy: 25.2 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				

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

	0°	45°	90°
0°	13321	13321	13321
5°	12794	13029	13285
10°	11795	12314	12962
15°	10568	11296	12377
20°	9276	10048	11362
25°	7855	8677	10253
30°	6301	7285	9130
35°	4656	5828	7909
40°	2922	4562	6427
45°	1146	3437	4762
50°	563	2320	2917
55°	447	1525	1300
60°	340	1236	1192
65°	253	1161	1161
70°	313	1182	1182
75°	328	1319	1233
80°	489	1721	1350
85°	974	2943	1948

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 5373 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.9	8.4
10°-20°	166.7	21.2
20°-30°	199.4	25.4
30°-40°	167.8	21.4
40°-50°	95.6	12.2
50°-60°	37.7	4.8
60°-70°	23.7	3.0
70°-80°	17.6	2.2
80°-90°	11.2	1.4
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°	432.0	55.0
0°-40°	599.8	76.3
0°-60°	733.1	93.3
0°-90°	785.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	785.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	722	722	722	722	722	
5°	691	706	703	712	717	64
15°	553	573	591	626	648	154
25°	386	403	426	470	504	176
35°	207	225	259	314	351	128
45°	44	77	132	165	182	41
55°	14	30	47	48	40	12
65°	6	27	27	25	27	6
75°	5	18	18	17	17	5
85°	5	13	14	13	9	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	721.9	721.9	721.9	721.9	721.9
2.5°	710.3	723.0	714.9	716.1	717.2
5°	690.7	705.7	703.4	711.5	717.2
7.5°	661.8	678.0	683.7	697.6	708.0
10°	629.5	647.9	657.2	679.1	691.8
12.5°	592.5	613.3	627.1	654.9	673.3
15°	553.2	572.9	591.3	626.0	647.9
17.5°	514.0	533.6	553.2	591.3	614.4
20°	472.4	490.9	511.7	552.1	578.6
22.5°	428.5	448.1	468.9	510.5	542.8
25°	385.8	403.1	426.2	470.1	503.6
27.5°	340.7	358.0	383.5	428.5	464.3
30°	295.7	313.0	341.9	388.1	428.5
32.5°	250.6	269.1	300.3	351.1	391.5
35°	206.7	225.2	258.7	314.2	351.1
37.5°	164.0	184.8	221.8	276.0	310.7
40°	121.3	145.5	189.4	237.9	266.8
42.5°	80.8	110.9	159.4	199.8	224.1
45°	43.9	77.4	131.7	165.2	182.5
47.5°	24.3	49.7	105.1	131.7	142.1
50°	19.6	34.6	80.8	100.5	101.6
52.5°	16.2	31.2	60.1	71.6	65.8
55°	13.9	30.0	47.4	48.5	40.4
57.5°	11.5	28.9	39.3	34.6	34.6
60°	9.2	28.9	33.5	31.2	32.3
62.5°	6.9	28.9	30.0	27.7	28.9
65°	5.8	26.6	26.6	25.4	26.6
67.5°	5.8	24.3	24.3	23.1	24.3
70°	5.8	23.1	21.9	21.9	21.9
72.5°	4.6	20.8	20.8	19.6	19.6
75°	4.6	18.5	18.5	17.3	17.3
77.5°	4.6	17.3	17.3	16.2	15.0
80°	4.6	15.0	16.2	15.0	12.7
82.5°	4.6	13.9	15.0	13.9	10.4
85°	4.6	12.7	13.9	12.7	9.2
87.5°	3.5	12.7	12.7	10.4	6.9
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	6.69	7.91	7.06	8.22	8.54	8.70	9.92	9.07	10.24	10.55
	3H	8.24	9.32	8.62	9.65	10.02	10.68	11.76	11.06	12.10	12.46
	4H	8.79	9.80	9.20	10.15	10.54	11.59	12.60	12.00	12.96	13.34
	6H	9.34	10.27	9.76	10.65	11.04	12.48	13.41	12.89	13.78	14.17
	8H	9.64	10.52	10.07	10.91	11.32	12.88	13.76	13.31	14.15	14.56
	12H	10.00	10.84	10.43	11.22	11.65	13.32	14.16	13.76	14.55	14.98
4H	2H	7.88	8.89	8.28	9.24	9.63	9.33	10.34	9.73	10.69	11.07
	3H	10.08	10.91	10.49	11.32	11.72	11.57	12.41	11.99	12.81	13.21
	4H	11.13	11.88	11.57	12.30	12.74	12.64	13.39	13.08	13.81	14.25
	6H	12.02	12.67	12.49	13.12	13.59	13.75	14.40	14.22	14.85	15.32
	8H	12.41	13.01	12.88	13.46	13.93	14.28	14.88	14.75	15.33	15.80
	12H	12.83	13.36	13.31	13.85	14.32	14.85	15.39	15.34	15.87	16.35
8H	4H	11.93	12.54	12.40	12.98	13.46	13.13	13.74	13.61	14.19	14.66
	6H	13.31	13.81	13.81	14.30	14.79	14.53	15.03	15.04	15.53	16.01
	8H	14.03	14.48	14.55	14.99	15.49	15.28	15.72	15.80	16.24	16.73
	12H	14.78	15.17	15.30	15.67	16.24	16.11	16.50	16.62	17.00	17.57
12H	4H	12.09	12.63	12.58	13.11	13.59	13.24	13.77	13.72	14.25	14.73
	6H	13.64	14.09	14.17	14.60	15.10	14.75	15.20	15.28	15.71	16.21
	8H	14.56	14.95	15.08	15.45	16.02	15.64	16.03	16.16	16.53	17.10