

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: P1058137

Luminaire Tested: S122RDRP-S865D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058137  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S865D840-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

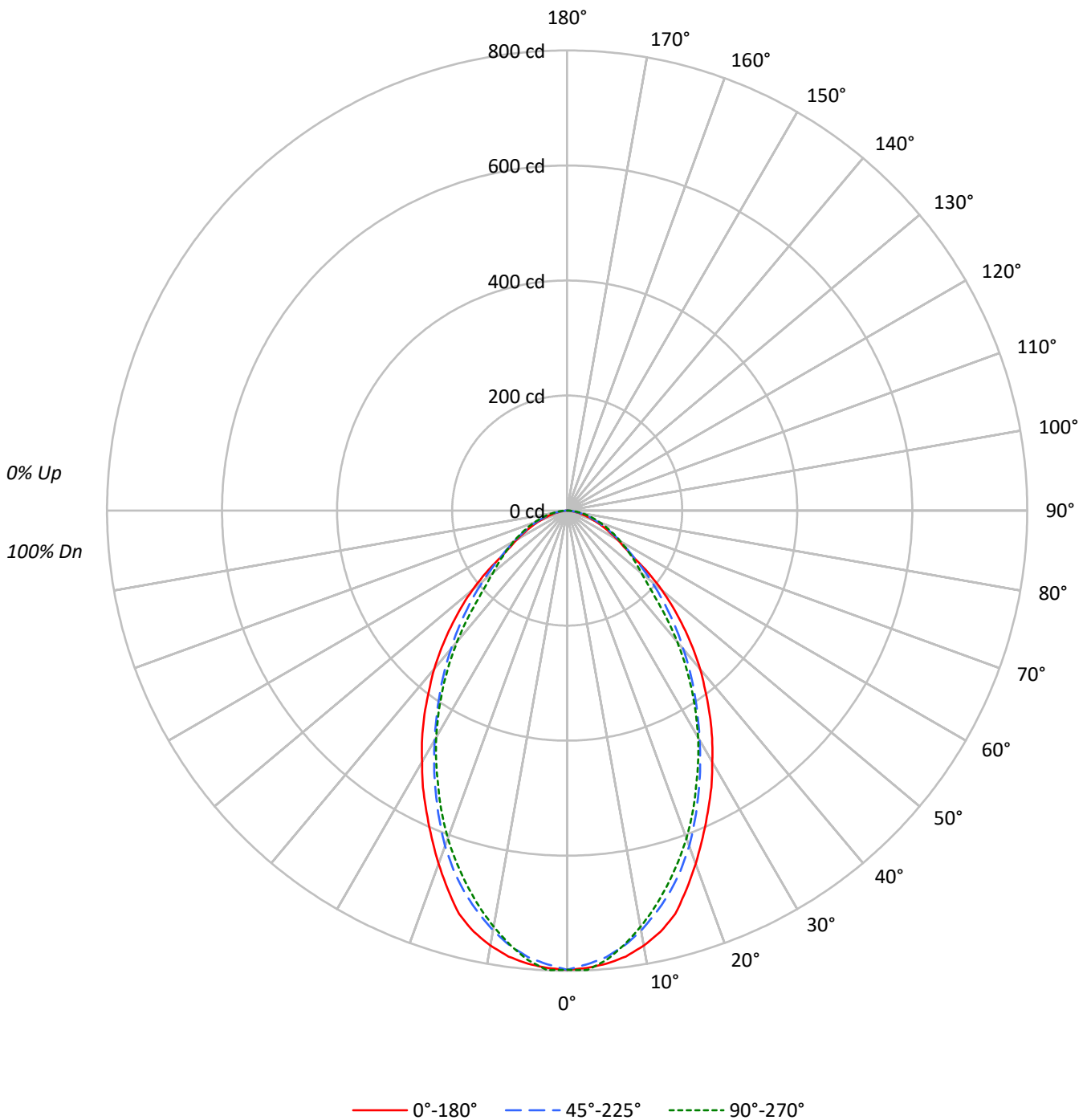
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1212.5 lumens  
Efficiency: N/A  
Efficacy: 34.6 lumens/watt  
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

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

	0°	45°	90°
0°	14732	14732	14732
5°	14646	14435	14529
10°	14388	13888	13768
15°	13867	13139	12872
20°	12831	12183	11908
25°	11776	11001	10793
30°	10754	9806	9697
35°	9736	8677	8477
40°	8667	7564	7166
45°	7463	6503	5738
50°	6166	5474	4817
55°	4459	4539	4337
60°	3705	3893	3941
65°	3166	3384	3607
70°	2606	3016	3291
75°	2174	2538	2994
80°	1626	2030	2699
85°	529	1080	2414

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7463 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.8	6.1
10°-20°	194.3	16.0
20°-30°	251.5	20.7
30°-40°	246.7	20.3
40°-50°	194.2	16.0
50°-60°	127.3	10.5
60°-70°	77.5	6.4
70°-80°	38.8	3.2
80°-90°	8.3	0.7
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°	519.7	42.9
0°-40°	766.3	63.2
0°-60°	1087.9	89.7
0°-90°	1212.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1212.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	798	798	798	798	798	
5°	791	791	779	784	784	75
15°	726	716	688	679	674	202
25°	578	559	540	538	530	266
35°	432	408	385	384	376	270
45°	286	268	249	231	220	220
55°	139	146	141	136	135	132
65°	72	74	78	81	83	72
75°	30	32	36	41	42	32
85°	2	4	5	9	11	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	798.4	798.4	798.4	798.4	798.4
2.5°	795.8	797.1	789.5	797.1	799.6
5°	790.7	790.7	779.3	784.4	784.4
7.5°	781.9	780.6	762.8	762.8	761.5
10°	767.9	762.8	741.2	737.4	734.8
12.5°	750.1	741.2	715.7	709.4	705.6
15°	725.9	715.7	687.8	678.9	673.8
17.5°	690.3	680.1	656.0	645.8	640.7
20°	653.4	638.2	620.4	611.5	606.4
22.5°	615.3	597.5	581.0	574.6	569.5
25°	578.4	559.4	540.3	537.8	530.1
27.5°	542.8	520.0	500.9	499.6	493.3
30°	504.7	480.6	460.2	461.5	455.1
32.5°	469.1	446.2	422.1	423.3	415.7
35°	432.2	408.1	385.2	383.9	376.3
37.5°	394.1	371.2	349.6	344.5	336.9
40°	359.8	336.9	314.0	305.1	297.5
42.5°	322.9	302.6	282.2	268.2	258.1
45°	286.0	268.2	249.2	231.4	219.9
47.5°	250.4	236.5	219.9	198.3	190.7
50°	214.8	204.7	190.7	171.6	167.8
52.5°	178.0	174.2	165.3	152.6	151.3
55°	138.6	146.2	141.1	136.0	134.8
57.5°	117.0	118.2	122.0	120.8	120.8
60°	100.4	100.4	105.5	106.8	106.8
62.5°	85.2	86.4	91.5	94.1	94.1
65°	72.5	73.7	77.5	81.4	82.6
67.5°	59.8	62.3	66.1	69.9	71.2
70°	48.3	50.9	55.9	59.8	61.0
72.5°	39.4	40.7	45.8	49.6	50.9
75°	30.5	31.8	35.6	40.7	42.0
77.5°	21.6	24.2	28.0	31.8	34.3
80°	15.3	16.5	19.1	24.2	25.4
82.5°	8.9	10.2	12.7	16.5	17.8
85°	2.5	3.8	5.1	8.9	11.4
87.5°	0.0	0.0	0.0	2.5	5.1
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	15.47	16.86	15.83	17.18	17.49	15.65	17.05	16.01	17.36	17.67
	3H	16.60	17.85	16.98	18.18	18.54	17.11	18.35	17.49	18.68	19.05
	4H	16.95	18.12	17.35	18.47	18.85	17.65	18.81	18.05	19.16	19.55
	6H	17.14	18.21	17.55	18.58	18.97	18.06	19.13	18.48	19.50	19.90
	8H	17.16	18.18	17.59	18.57	18.98	18.19	19.21	18.62	19.60	20.00
	12H	17.15	18.12	17.58	18.50	18.93	18.27	19.25	18.71	19.63	20.06
4H	2H	15.92	17.09	16.33	17.44	17.82	16.07	17.24	16.48	17.59	17.97
	3H	17.27	18.22	17.68	18.63	19.03	17.75	18.70	18.16	19.11	19.51
	4H	17.71	18.57	18.14	18.99	19.43	18.41	19.27	18.85	19.69	20.13
	6H	17.98	18.73	18.44	19.17	19.63	18.95	19.69	19.41	20.14	20.60
	8H	18.03	18.72	18.49	19.17	19.64	19.12	19.81	19.58	20.26	20.73
	12H	18.02	18.64	18.51	19.12	19.59	19.24	19.85	19.72	20.33	20.81
8H	4H	17.92	18.62	18.39	19.06	19.53	18.56	19.26	19.03	19.70	20.17
	6H	18.27	18.84	18.77	19.33	19.81	19.19	19.76	19.69	20.26	20.74
	8H	18.35	18.86	18.87	19.37	19.86	19.43	19.94	19.95	20.45	20.94
	12H	18.37	18.82	18.88	19.31	19.88	19.61	20.06	20.12	20.56	21.12
12H	4H	17.94	18.55	18.42	19.03	19.51	18.55	19.16	19.03	19.65	20.12
	6H	18.30	18.81	18.81	19.32	19.81	19.19	19.70	19.71	20.21	20.70
	8H	18.41	18.86	18.93	19.36	19.93	19.46	19.91	19.98	20.41	20.98