

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: P1058524

Luminaire Tested: S122RDR-H865D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058524  
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: S122RDR-H865D830-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

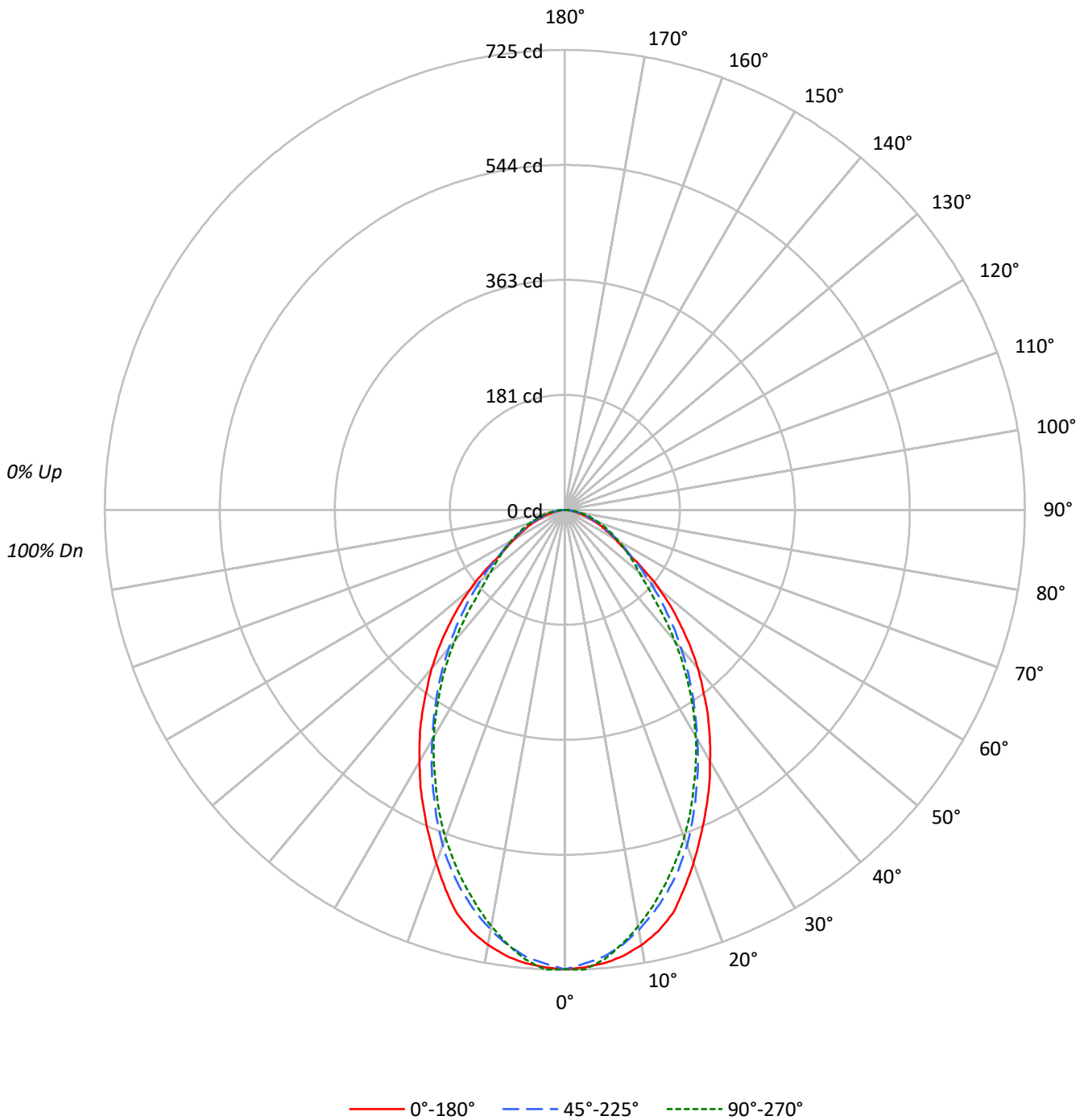
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1099.8 lumens  
Efficiency: N/A  
Efficacy: 35.2 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): 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			100	
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88	
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77			77	
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68			68	
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61			61	
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54			54	
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49			49	
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44			44	
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41			41	
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37			37	
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34			34	

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

	0°	45°	90°
0°	13363	13363	13363
5°	13285	13094	13179
10°	13050	12597	12488
15°	12578	11917	11674
20°	11639	11050	10800
25°	10683	9978	9789
30°	9754	8894	8796
35°	8833	7871	7688
40°	7860	6860	6499
45°	6769	5898	5206
50°	5595	4966	4369
55°	4044	4118	3931
60°	3362	3532	3576
65°	2869	3069	3275
70°	2363	2735	2984
75°	1975	2303	2716
80°	1466	1838	2455
85°	487	974	2202

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6769 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.9	6.1
10°-20°	176.3	16.0
20°-30°	228.2	20.7
30°-40°	223.7	20.3
40°-50°	176.2	16.0
50°-60°	115.5	10.5
60°-70°	70.3	6.4
70°-80°	35.1	3.2
80°-90°	7.6	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°	471.4	42.9
0°-40°	695.1	63.2
0°-60°	986.8	89.7
0°-90°	1099.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1099.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	717	717	707	712	712	68
15°	658	649	624	616	611	183
25°	525	507	490	488	481	241
35°	392	370	349	348	341	244
45°	259	243	226	210	200	200
55°	126	133	128	123	122	119
65°	66	67	70	74	75	65
75°	28	29	32	37	38	29
85°	2	4	5	8	10	5
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	724.2	724.2	724.2	724.2	724.2
2.5°	721.8	723.0	716.1	723.0	725.3
5°	717.2	717.2	706.9	711.5	711.5
7.5°	709.2	708.0	691.9	691.9	690.7
10°	696.5	691.9	672.3	668.8	666.5
12.5°	680.3	672.3	649.2	643.4	640.0
15°	658.4	649.2	623.8	615.8	611.1
17.5°	626.1	616.9	595.0	585.8	581.2
20°	592.7	578.9	562.7	554.6	550.0
22.5°	558.1	542.0	527.0	521.2	516.6
25°	524.7	507.4	490.1	487.8	480.8
27.5°	492.4	471.6	454.3	453.2	447.4
30°	457.8	435.9	417.4	418.6	412.8
32.5°	425.5	404.7	382.8	384.0	377.1
35°	392.1	370.1	349.4	348.2	341.3
37.5°	357.5	336.7	317.1	312.5	305.6
40°	326.3	305.6	284.8	276.7	269.8
42.5°	292.9	274.4	256.0	243.3	234.1
45°	259.4	243.3	226.0	209.9	199.5
47.5°	227.2	214.5	199.5	179.9	173.0
50°	194.9	185.7	173.0	155.7	152.2
52.5°	161.4	158.0	149.9	138.4	137.2
55°	125.7	132.6	128.0	123.4	122.2
57.5°	106.1	107.2	110.7	109.5	109.5
60°	91.1	91.1	95.7	96.9	96.9
62.5°	77.3	78.4	83.0	85.3	85.3
65°	65.7	66.9	70.3	73.8	75.0
67.5°	54.2	56.5	60.0	63.4	64.6
70°	43.8	46.1	50.7	54.2	55.3
72.5°	35.7	36.9	41.5	45.0	46.1
75°	27.7	28.8	32.3	36.9	38.1
77.5°	19.6	21.9	25.4	28.8	31.1
80°	13.8	15.0	17.3	21.9	23.1
82.5°	8.1	9.2	11.5	15.0	16.1
85°	2.3	3.5	4.6	8.1	10.4
87.5°	0.0	0.0	0.0	2.3	4.6
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	15.13	16.52	15.49	16.84	17.15	15.31	16.70	15.67	17.02	17.33
	3H	16.26	17.51	16.64	17.83	18.20	16.77	18.01	17.15	18.34	18.70
	4H	16.61	17.78	17.01	18.13	18.51	17.31	18.47	17.71	18.82	19.20
	6H	16.80	17.87	17.21	18.24	18.63	17.72	18.79	18.14	19.16	19.56
	8H	16.82	17.84	17.25	18.23	18.63	17.85	18.87	18.28	19.26	19.66
	12H	16.81	17.78	17.24	18.16	18.59	17.93	18.90	18.36	19.29	19.72
4H	2H	15.59	16.75	15.99	17.10	17.48	15.73	16.90	16.13	17.25	17.63
	3H	16.93	17.88	17.34	18.29	18.69	17.41	18.36	17.82	18.77	19.17
	4H	17.37	18.23	17.80	18.65	19.09	18.07	18.93	18.51	19.35	19.79
	6H	17.64	18.38	18.10	18.83	19.29	18.61	19.35	19.07	19.79	20.26
	8H	17.68	18.38	18.15	18.82	19.29	18.77	19.47	19.24	19.91	20.38
	12H	17.68	18.30	18.16	18.78	19.25	18.90	19.51	19.38	19.99	20.47
8H	4H	17.58	18.28	18.05	18.72	19.19	18.22	18.91	18.69	19.36	19.83
	6H	17.93	18.50	18.43	18.99	19.47	18.85	19.42	19.35	19.92	20.39
	8H	18.01	18.52	18.53	19.03	19.52	19.09	19.60	19.60	20.11	20.60
	12H	18.02	18.47	18.54	18.97	19.54	19.27	19.72	19.78	20.21	20.78
12H	4H	17.59	18.21	18.08	18.69	19.16	18.21	18.82	18.69	19.30	19.78
	6H	17.95	18.46	18.47	18.98	19.47	18.85	19.36	19.36	19.87	20.36
	8H	18.07	18.52	18.58	19.01	19.58	19.12	19.57	19.63	20.07	20.63