

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: P1058283

Luminaire Tested: S122RDR-H290D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058283  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H290D830-X4F0-XX-UDD-WVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

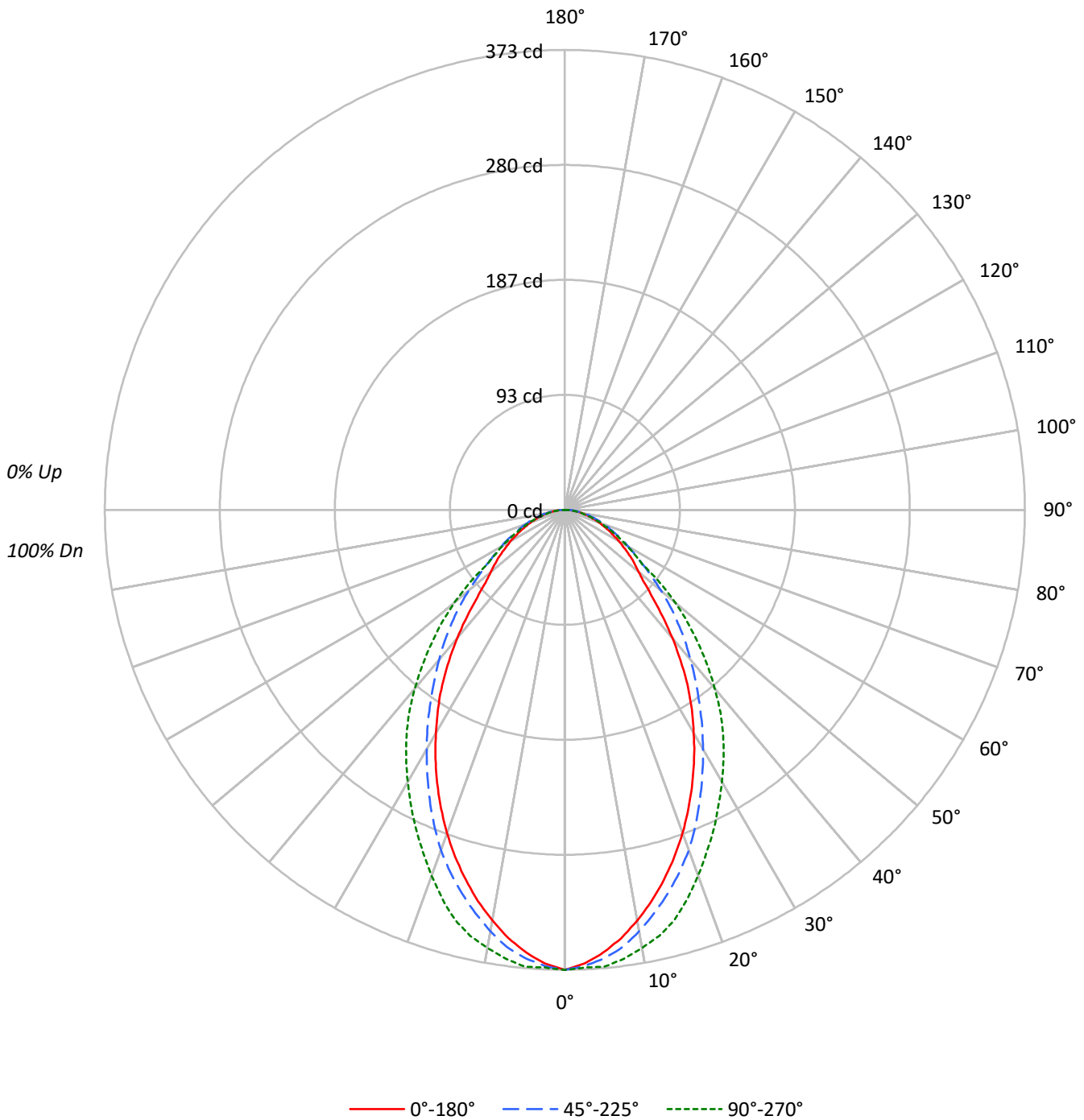
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 608.3 lumens  
Efficiency: N/A  
Efficacy: 52.0 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.7  
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										
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	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87					87															
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76					76															
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67					67															
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59					59															
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52					52															
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47					47															
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43					43															
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39					39															
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36															
10	59	47	40	35	58	46	40	35	46	39	35	45	39	35	44	38	34	33					33															

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

	0°	45°	90°
0°	6885	6885	6885
5°	6674	6763	6889
10°	6337	6504	6758
15°	5932	6155	6575
20°	5483	5767	6201
25°	4982	5277	5817
30°	4453	4771	5429
35°	3904	4275	5044
40°	3266	3818	4553
45°	2617	3382	3980
50°	2245	2914	3341
55°	2053	2477	2464
60°	1867	2192	2148
65°	1698	1960	1873
70°	1559	1797	1667
75°	1462	1661	1462
80°	1360	1530	1275
85°	1355	1609	1101

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3980 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.4	5.7
10°-20°	91.2	15.0
20°-30°	120.3	19.8
30°-40°	121.1	19.9
40°-50°	98.6	16.2
50°-60°	67.2	11.0
60°-70°	43.6	7.2
70°-80°	24.0	4.0
80°-90°	7.8	1.3
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°	245.9	40.4
0°-40°	367.0	60.3
0°-60°	532.8	87.6
0°-90°	608.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	608.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	373	373	373	373	373	
5°	360	367	365	368	372	34
15°	310	319	322	335	344	87
25°	245	253	259	271	286	112
35°	173	182	190	206	224	108
45°	100	113	130	141	152	79
55°	64	70	77	77	77	57
65°	39	46	45	42	43	39
75°	20	25	23	21	20	22
85°	6	8	8	6	5	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	373.1	373.1	373.1	373.1	373.1
2.5°	368.3	374.3	370.3	370.7	371.5
5°	360.3	367.1	365.1	368.3	371.9
7.5°	350.3	357.1	357.9	362.7	367.1
10°	338.2	345.8	347.1	354.3	360.7
12.5°	325.0	333.4	335.0	345.4	353.9
15°	310.5	318.6	322.2	335.4	344.2
17.5°	295.3	302.9	308.5	320.6	330.6
20°	279.2	286.5	293.7	304.5	315.8
22.5°	262.0	270.0	276.8	287.7	300.5
25°	244.7	252.8	259.2	270.8	285.7
27.5°	227.1	235.1	241.5	254.0	270.0
30°	209.0	217.5	223.9	237.9	254.8
32.5°	191.4	199.8	207.0	221.9	239.5
35°	173.3	182.2	189.8	206.2	223.9
37.5°	154.1	164.1	173.7	190.2	207.4
40°	135.6	146.8	158.5	173.7	189.0
42.5°	117.2	129.6	144.0	156.9	170.9
45°	100.3	112.7	129.6	140.8	152.5
47.5°	87.1	97.5	115.6	124.8	135.2
50°	78.2	85.5	101.5	108.7	116.4
52.5°	71.0	77.0	88.3	93.1	97.1
55°	63.8	70.2	77.0	77.4	76.6
57.5°	56.6	63.8	67.4	64.6	66.2
60°	50.6	57.8	59.4	56.6	58.2
62.5°	44.1	52.2	52.2	49.3	50.2
65°	38.9	46.1	44.9	42.5	42.9
67.5°	33.7	40.9	38.9	36.5	36.5
70°	28.9	35.7	33.3	30.9	30.9
72.5°	24.5	30.1	28.5	25.7	25.3
75°	20.5	25.3	23.3	20.9	20.5
77.5°	16.4	20.5	18.9	16.9	16.0
80°	12.8	16.4	14.4	12.8	12.0
82.5°	9.6	12.4	10.8	9.2	8.4
85°	6.4	8.4	7.6	6.0	5.2
87.5°	3.2	5.6	4.8	4.0	3.2
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	13.42	14.86	13.79	15.18	15.49	13.67	15.11	14.04	15.42	15.74
	3H	14.95	16.24	15.33	16.57	16.93	15.03	16.31	15.41	16.64	17.01
	4H	15.51	16.72	15.92	17.07	17.45	15.51	16.72	15.91	17.07	17.45
	6H	15.94	17.05	16.35	17.42	17.81	15.86	16.97	16.27	17.34	17.73
	8H	16.09	17.14	16.52	17.53	17.94	15.96	17.02	16.39	17.41	17.81
	12H	16.20	17.21	16.63	17.59	18.02	16.03	17.04	16.46	17.43	17.86
4H	2H	13.99	15.20	14.40	15.55	15.93	14.19	15.40	14.59	15.75	16.13
	3H	15.80	16.80	16.21	17.20	17.60	15.77	16.77	16.18	17.17	17.57
	4H	16.54	17.44	16.98	17.86	18.30	16.36	17.26	16.80	17.68	18.12
	6H	17.13	17.91	17.59	18.35	18.81	16.83	17.61	17.29	18.05	18.52
	8H	17.33	18.06	17.80	18.51	18.98	16.98	17.71	17.45	18.15	18.62
	12H	17.50	18.15	17.98	18.63	19.10	17.09	17.74	17.57	18.22	18.69
8H	4H	16.81	17.54	17.27	17.98	18.45	16.66	17.38	17.12	17.83	18.30
	6H	17.56	18.16	18.06	18.65	19.13	17.24	17.84	17.74	18.34	18.82
	8H	17.88	18.42	18.40	18.93	19.42	17.46	18.00	17.98	18.51	19.00
	12H	18.16	18.64	18.67	19.13	19.70	17.65	18.12	18.16	18.62	19.18
12H	4H	16.82	17.47	17.30	17.95	18.42	16.69	17.34	17.17	17.82	18.29
	6H	17.61	18.15	18.12	18.66	19.15	17.31	17.85	17.83	18.36	18.85
	8H	18.00	18.48	18.51	18.97	19.54	17.59	18.07	18.11	18.56	19.13