

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: P1058202

Luminaire Tested: S122RDR-H1005D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058202  
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-H1005D830-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: -

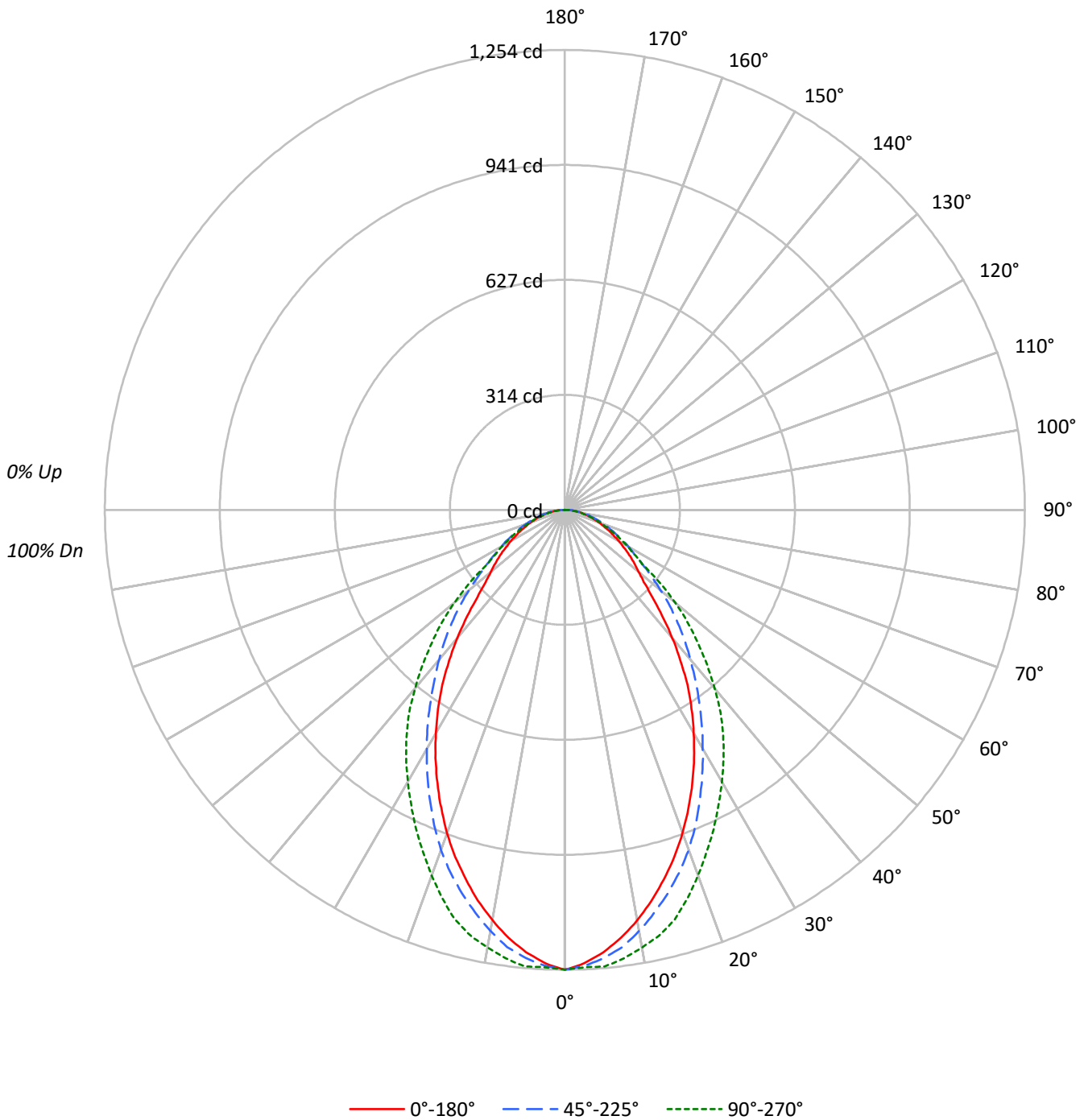
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2043.9 lumens  
Efficiency: N/A  
Efficacy: 56.0 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): 36.5  
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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67				
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59				
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	40	35	46	39	35	45	39	35	44	38	34	33				

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

	0°	45°	90°
0°	23134	23134	23134
5°	22424	22724	23148
10°	21293	21849	22708
15°	19932	20679	22097
20°	18425	19378	20833
25°	16742	17732	19542
30°	14966	16027	18239
35°	13119	14363	16944
40°	10977	12827	15293
45°	8794	11362	13369
50°	7547	9792	11222
55°	6894	8326	8284
60°	6270	7363	7215
65°	5711	6593	6296
70°	5239	6037	5600
75°	4905	5575	4905
80°	4580	5154	4293
85°	4573	5420	3705

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13369 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.7	5.7
10°-20°	306.4	15.0
20°-30°	404.1	19.8
30°-40°	407.0	19.9
40°-50°	331.2	16.2
50°-60°	225.8	11.0
60°-70°	146.6	7.2
70°-80°	80.7	3.9
80°-90°	26.3	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°	826.3	40.4
0°-40°	1233.2	60.3
0°-60°	1790.3	87.6
0°-90°	2043.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2043.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1254	1254	1254	1254	1254	
5°	1211	1234	1227	1238	1250	113
15°	1043	1070	1082	1127	1157	292
25°	822	849	871	910	960	377
35°	582	612	638	693	752	362
45°	337	379	435	473	512	266
55°	214	236	259	260	258	192
65°	131	155	151	143	144	130
75°	69	85	78	70	69	73
85°	22	28	26	20	18	23
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1253.7	1253.7	1253.7	1253.7	1253.7
2.5°	1237.5	1257.8	1244.3	1245.6	1248.3
5°	1210.6	1233.5	1226.8	1237.5	1249.7
7.5°	1176.9	1199.8	1202.5	1218.7	1233.5
10°	1136.4	1162.0	1166.1	1190.4	1211.9
12.5°	1091.9	1120.3	1125.6	1160.7	1189.0
15°	1043.4	1070.4	1082.5	1127.0	1156.7
17.5°	992.2	1017.8	1036.7	1077.1	1110.8
20°	938.3	962.5	986.8	1023.2	1060.9
22.5°	880.3	907.3	930.2	966.6	1009.7
25°	822.3	849.3	870.9	910.0	959.8
27.5°	763.0	790.0	811.5	853.3	907.3
30°	702.4	730.7	752.2	799.4	856.0
32.5°	643.0	671.3	695.6	745.5	804.8
35°	582.4	612.0	637.6	692.9	752.2
37.5°	517.7	551.4	583.7	639.0	697.0
40°	455.7	493.4	532.5	583.7	634.9
42.5°	393.6	435.4	484.0	527.1	574.3
45°	337.0	378.8	435.4	473.2	512.3
47.5°	292.5	327.6	388.2	419.3	454.3
50°	262.9	287.1	341.1	365.3	390.9
52.5°	238.6	258.8	296.6	312.8	326.2
55°	214.3	235.9	258.8	260.2	257.5
57.5°	190.1	214.3	226.5	217.0	222.4
60°	169.9	194.1	199.5	190.1	195.5
62.5°	148.3	175.3	175.3	165.8	168.5
65°	130.8	155.0	151.0	142.9	144.2
67.5°	113.2	137.5	130.8	122.7	122.7
70°	97.1	120.0	111.9	103.8	103.8
72.5°	82.2	101.1	95.7	86.3	84.9
75°	68.8	84.9	78.2	70.1	68.8
77.5°	55.3	68.8	63.4	56.6	53.9
80°	43.1	55.3	48.5	43.1	40.4
82.5°	32.4	41.8	36.4	31.0	28.3
85°	21.6	28.3	25.6	20.2	17.5
87.5°	10.8	18.9	16.2	13.5	10.8
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	17.63	19.07	18.00	19.38	19.70	17.88	19.32	18.24	19.63	19.95
	3H	19.16	20.45	19.54	20.78	21.14	19.24	20.52	19.62	20.85	21.22
	4H	19.72	20.93	20.12	21.28	21.66	19.72	20.92	20.12	21.27	21.65
	6H	20.15	21.26	20.56	21.63	22.02	20.07	21.18	20.48	21.55	21.94
	8H	20.30	21.36	20.73	21.75	22.15	20.18	21.23	20.60	21.62	22.02
	12H	20.41	21.42	20.84	21.81	22.24	20.24	21.26	20.67	21.64	22.07
4H	2H	18.20	19.41	18.60	19.76	20.14	18.40	19.61	18.80	19.96	20.34
	3H	20.01	21.01	20.42	21.41	21.81	19.98	20.98	20.39	21.38	21.78
	4H	20.75	21.65	21.18	22.06	22.51	20.57	21.47	21.01	21.89	22.33
	6H	21.34	22.12	21.80	22.56	23.02	21.04	21.82	21.50	22.26	22.73
	8H	21.55	22.28	22.01	22.72	23.19	21.19	21.92	21.66	22.36	22.83
	12H	21.71	22.36	22.20	22.84	23.31	21.30	21.95	21.78	22.43	22.90
8H	4H	21.02	21.74	21.48	22.19	22.66	20.86	21.59	21.33	22.04	22.51
	6H	21.77	22.37	22.27	22.87	23.34	21.45	22.05	21.95	22.55	23.03
	8H	22.10	22.64	22.61	23.15	23.64	21.67	22.21	22.19	22.73	23.22
	12H	22.38	22.86	22.89	23.35	23.92	21.86	22.33	22.37	22.83	23.39
12H	4H	21.03	21.68	21.51	22.16	22.63	20.90	21.55	21.38	22.03	22.50
	6H	21.82	22.36	22.33	22.87	23.36	21.52	22.06	22.04	22.57	23.06
	8H	22.21	22.69	22.73	23.18	23.75	21.81	22.28	22.32	22.78	23.34