

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: P1058508

Luminaire Tested: S122RDR-H675D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058508  
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-H675D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

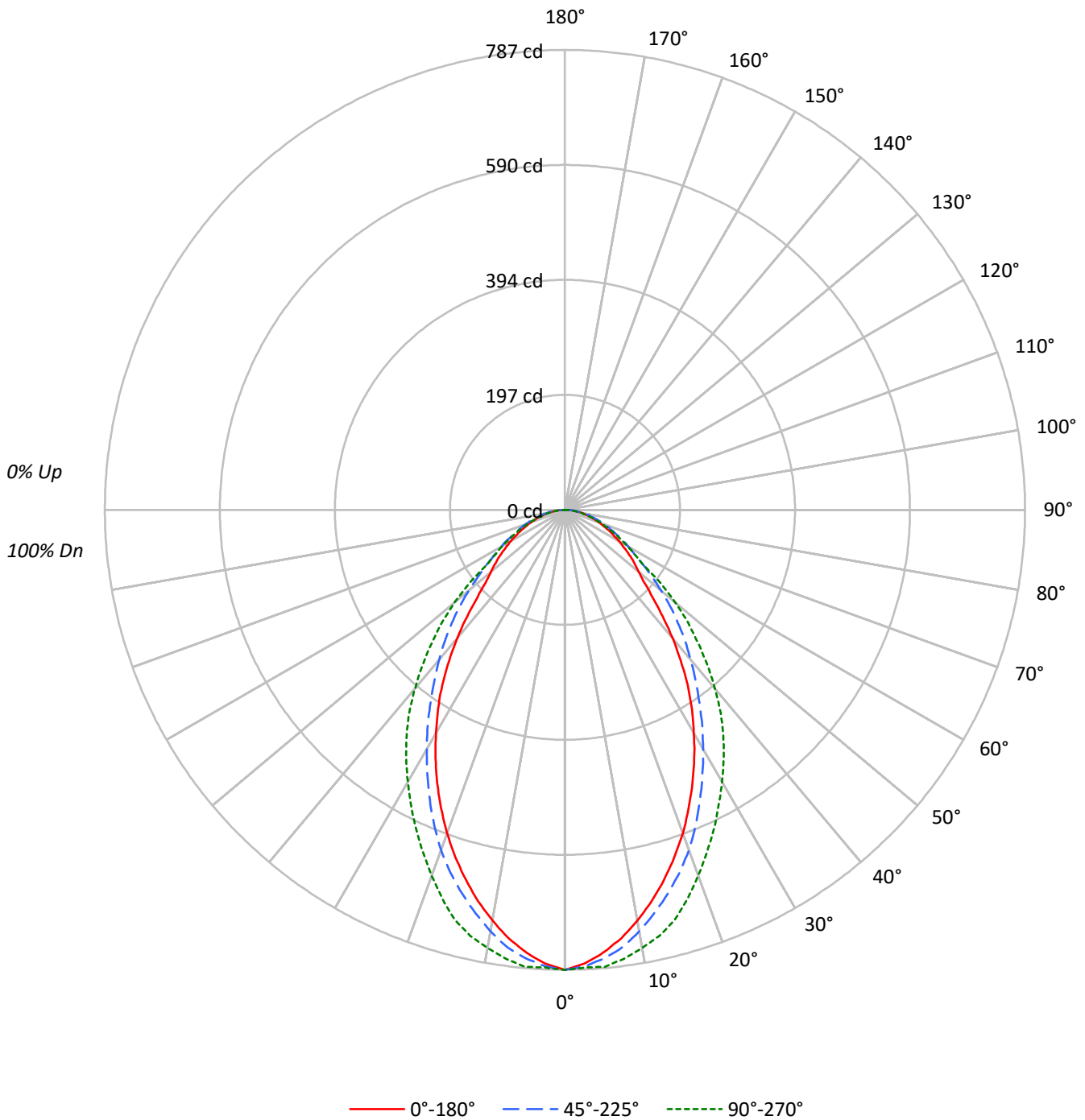
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1283.5 lumens  
Efficiency: N/A  
Efficacy: 54.6 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): 23.5  
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				100
1	110	106	103	99	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	39	35	46	39	35	45	39	35	44	38	34	33				33

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

	0°	45°	90°
0°	14528	14528	14528
5°	14081	14270	14537
10°	13373	13721	14261
15°	12517	12986	13877
20°	11570	12169	13082
25°	10514	11135	12273
30°	9399	10065	11455
35°	8238	9020	10641
40°	6892	8055	9604
45°	5522	7135	8395
50°	4740	6149	7048
55°	4330	5228	5202
60°	3938	4624	4532
65°	3585	4139	3956
70°	3291	3793	3518
75°	3080	3501	3080
80°	2880	3241	2699
85°	2858	3409	2329

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8395 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.7	5.7
10°-20°	192.4	15.0
20°-30°	253.8	19.8
30°-40°	255.6	19.9
40°-50°	208.0	16.2
50°-60°	141.8	11.0
60°-70°	92.1	7.2
70°-80°	50.7	3.9
80°-90°	16.5	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°	518.9	40.4
0°-40°	774.4	60.3
0°-60°	1124.2	87.6
0°-90°	1283.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1283.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	787	787	787	787	787	
5°	760	775	770	777	785	71
15°	655	672	680	708	726	184
25°	516	533	547	571	603	237
35°	366	384	400	435	472	227
45°	212	238	273	297	322	167
55°	135	148	162	163	162	121
65°	82	97	95	90	91	82
75°	43	53	49	44	43	46
85°	14	18	16	13	11	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	787.3	787.3	787.3	787.3	787.3
2.5°	777.1	789.8	781.4	782.2	783.9
5°	760.2	774.6	770.4	777.1	784.8
7.5°	739.1	753.4	755.1	765.3	774.6
10°	713.7	729.7	732.3	747.5	761.1
12.5°	685.7	703.5	706.9	728.9	746.7
15°	655.2	672.2	679.8	707.7	726.4
17.5°	623.1	639.2	651.0	676.4	697.6
20°	589.2	604.4	619.7	642.5	666.2
22.5°	552.8	569.7	584.1	607.0	634.1
25°	516.4	533.3	546.9	571.4	602.8
27.5°	479.2	496.1	509.6	535.9	569.7
30°	441.1	458.8	472.4	502.0	537.6
32.5°	403.8	421.6	436.8	468.2	505.4
35°	365.7	384.3	400.4	435.1	472.4
37.5°	325.1	346.2	366.6	401.3	437.7
40°	286.1	309.8	334.4	366.6	398.7
42.5°	247.2	273.4	303.9	331.0	360.6
45°	211.6	237.9	273.4	297.1	321.7
47.5°	183.7	205.7	243.8	263.3	285.3
50°	165.1	180.3	214.2	229.4	245.5
52.5°	149.8	162.5	186.2	196.4	204.9
55°	134.6	148.1	162.5	163.4	161.7
57.5°	119.4	134.6	142.2	136.3	139.7
60°	106.7	121.9	125.3	119.4	122.8
62.5°	93.1	110.1	110.1	104.1	105.8
65°	82.1	97.4	94.8	89.7	90.6
67.5°	71.1	86.3	82.1	77.0	77.0
70°	61.0	75.3	70.3	65.2	65.2
72.5°	51.6	63.5	60.1	54.2	53.3
75°	43.2	53.3	49.1	44.0	43.2
77.5°	34.7	43.2	39.8	35.6	33.9
80°	27.1	34.7	30.5	27.1	25.4
82.5°	20.3	26.2	22.9	19.5	17.8
85°	13.5	17.8	16.1	12.7	11.0
87.5°	6.8	11.9	10.2	8.5	6.8
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	16.02	17.46	16.38	17.77	18.08	16.26	17.70	16.63	18.02	18.33
	3H	17.54	18.83	17.92	19.16	19.52	17.62	18.91	18.00	19.24	19.60
	4H	18.11	19.31	18.51	19.66	20.04	18.10	19.31	18.50	19.66	20.04
	6H	18.53	19.64	18.94	20.01	20.40	18.45	19.56	18.86	19.93	20.32
	8H	18.68	19.74	19.11	20.13	20.53	18.56	19.62	18.99	20.01	20.41
	12H	18.80	19.81	19.23	20.19	20.62	18.63	19.64	19.06	20.02	20.45
4H	2H	16.59	17.79	16.99	18.14	18.52	16.79	17.99	17.19	18.34	18.72
	3H	18.39	19.39	18.80	19.79	20.19	18.36	19.36	18.77	19.76	20.16
	4H	19.13	20.03	19.57	20.45	20.89	18.96	19.85	19.39	20.27	20.71
	6H	19.72	20.50	20.18	20.94	21.41	19.43	20.21	19.88	20.65	21.11
	8H	19.93	20.66	20.40	21.10	21.57	19.58	20.30	20.04	20.75	21.22
	12H	20.09	20.74	20.58	21.22	21.70	19.68	20.33	20.17	20.81	21.29
8H	4H	19.40	20.13	19.86	20.57	21.04	19.25	19.98	19.71	20.42	20.89
	6H	20.15	20.76	20.65	21.25	21.73	19.84	20.44	20.34	20.93	21.41
	8H	20.48	21.02	21.00	21.53	22.02	20.06	20.60	20.58	21.11	21.60
	12H	20.76	21.24	21.27	21.73	22.30	20.24	20.72	20.75	21.21	21.78
12H	4H	19.41	20.06	19.90	20.54	21.01	19.28	19.93	19.76	20.41	20.88
	6H	20.20	20.74	20.72	21.25	21.74	19.91	20.45	20.42	20.96	21.45
	8H	20.60	21.07	21.11	21.57	22.13	20.19	20.67	20.70	21.16	21.73