

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: P1059354

Luminaire Tested: S123RDRP-S775D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059354  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S775D840-X4F0-XX-UDD-WVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

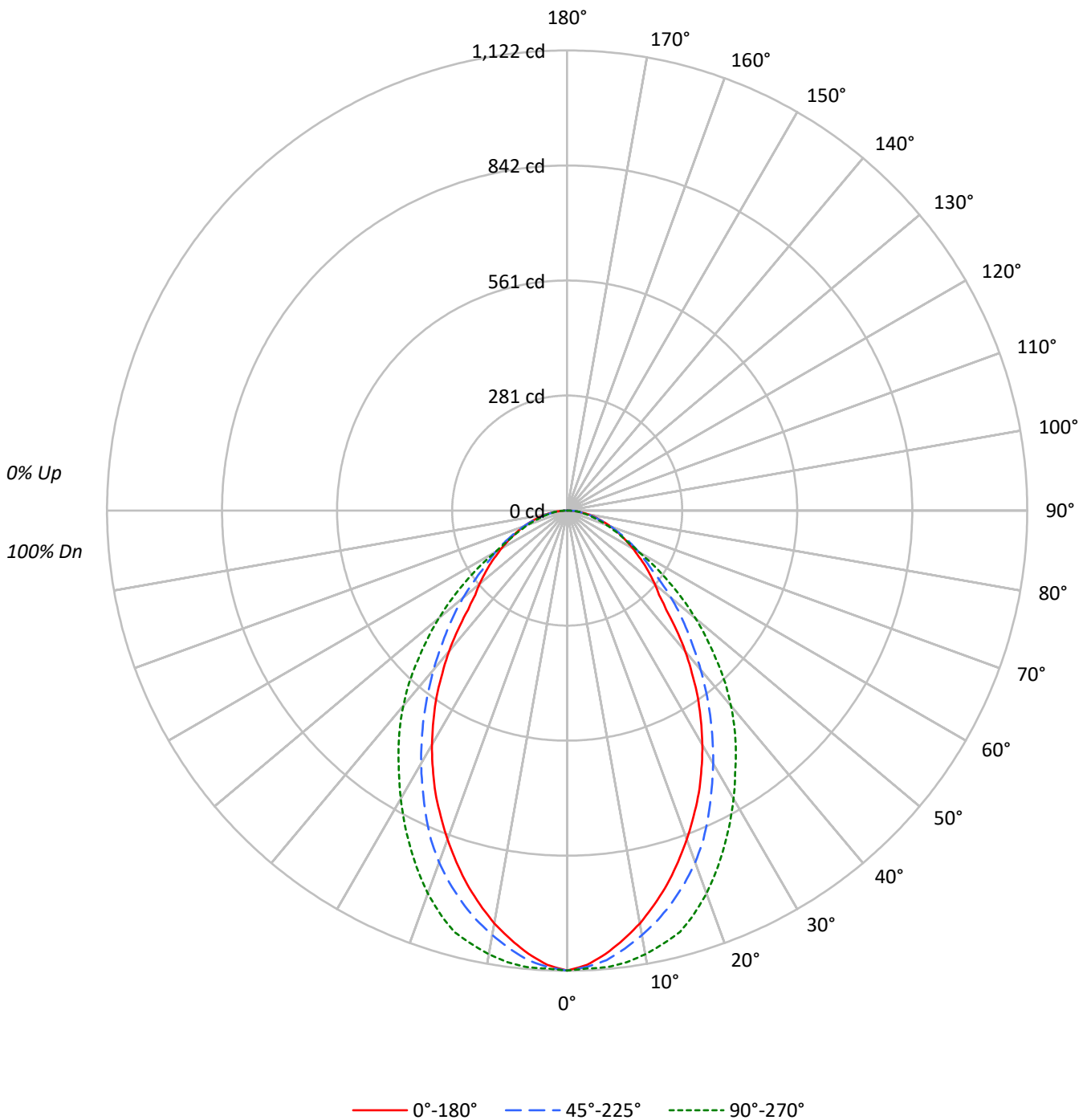
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1970.7 lumens  
Efficiency: N/A  
Efficacy: 76.4 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.8  
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	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	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58					58			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51					51			
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46					46			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41					41			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38					38			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34					34			
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32					32			

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

	0°	45°	90°
0°	13169	13169	13169
5°	12787	12970	13173
10°	12187	12532	13096
15°	11463	12027	12930
20°	10662	11409	12410
25°	9842	10579	11729
30°	8938	9658	11006
35°	7956	8716	10280
40°	6864	7767	9528
45°	5674	6875	8542
50°	5095	6065	7459
55°	4723	5177	6185
60°	4352	4713	4737
65°	4048	4265	3968
70°	3811	3876	3478
75°	3589	3457	3067
80°	3395	3131	2874
85°	3247	3516	3247

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8542 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.9	5.3
10°-20°	279.8	14.2
20°-30°	378.6	19.2
30°-40°	389.0	19.7
40°-50°	326.7	16.6
50°-60°	234.2	11.9
60°-70°	149.1	7.6
70°-80°	81.9	4.2
80°-90°	27.3	1.4
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°	762.3	38.7
0°-40°	1151.3	58.4
0°-60°	1712.3	86.9
0°-90°	1970.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1970.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1122	1122	1122	1122	1122	
5°	1085	1104	1100	1108	1118	102
15°	943	969	989	1032	1064	264
25°	760	788	816	861	905	348
35°	555	585	608	662	717	345
45°	342	372	414	474	514	270
55°	231	236	253	287	302	206
65°	146	154	154	145	143	145
75°	79	87	76	70	68	84
85°	24	25	26	27	24	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1121.5	1121.5	1121.5	1121.5	1121.5
2.5°	1108.9	1124.4	1113.8	1114.7	1117.6
5°	1084.8	1104.1	1100.3	1108.0	1117.6
7.5°	1054.9	1076.1	1077.1	1095.4	1110.9
10°	1022.1	1044.3	1051.0	1079.0	1098.3
12.5°	983.5	1007.6	1022.1	1056.8	1081.9
15°	942.9	969.0	989.3	1031.7	1063.6
17.5°	898.5	926.5	952.6	998.0	1030.8
20°	853.2	883.1	913.0	955.5	993.1
22.5°	805.9	836.8	867.7	909.2	950.7
25°	759.6	788.5	816.5	860.9	905.3
27.5°	709.4	739.3	763.4	812.6	859.0
30°	659.2	689.1	712.3	763.4	811.7
32.5°	607.1	638.0	659.2	712.3	762.5
35°	555.0	584.9	608.0	662.1	717.1
37.5°	499.9	532.8	555.9	616.7	670.8
40°	447.8	478.7	506.7	570.4	621.6
42.5°	393.8	425.6	457.5	523.1	570.4
45°	341.7	371.6	414.0	473.9	514.4
47.5°	304.0	323.3	372.5	422.7	461.3
50°	278.9	286.6	332.0	376.4	408.3
52.5°	253.8	259.6	290.5	331.0	355.2
55°	230.7	235.5	252.9	286.6	302.1
57.5°	205.6	210.4	224.9	244.2	252.9
60°	185.3	189.2	200.7	203.6	201.7
62.5°	165.0	170.8	176.6	169.9	167.0
65°	145.7	154.4	153.5	144.8	142.8
67.5°	128.4	137.1	132.2	123.5	120.6
70°	111.0	119.7	112.9	104.2	101.3
72.5°	94.6	104.2	93.6	85.9	84.0
75°	79.1	86.9	76.2	70.5	67.6
77.5°	64.7	70.5	60.8	56.0	54.0
80°	50.2	54.0	46.3	43.4	42.5
82.5°	36.7	38.6	33.8	35.7	34.7
85°	24.1	25.1	26.1	27.0	24.1
87.5°	11.6	16.4	16.4	15.4	12.5
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	16.14	17.60	16.51	17.92	18.23	17.21	18.67	17.58	18.99	19.30
	3H	17.84	19.15	18.22	19.48	19.84	18.30	19.61	18.67	19.93	20.30
	4H	18.49	19.72	18.89	20.07	20.45	18.70	19.92	19.10	20.27	20.65
	6H	19.00	20.13	19.41	20.50	20.89	19.01	20.14	19.42	20.51	20.90
	8H	19.17	20.25	19.60	20.64	21.04	19.14	20.22	19.57	20.61	21.01
	12H	19.29	20.33	19.73	20.71	21.14	19.26	20.29	19.69	20.68	21.11
4H	2H	16.74	17.97	17.14	18.32	18.70	17.61	18.84	18.02	19.19	19.57
	3H	18.67	19.69	19.08	20.09	20.49	18.93	19.95	19.34	20.35	20.75
	4H	19.48	20.40	19.92	20.82	21.26	19.45	20.37	19.88	20.78	21.22
	6H	20.13	20.93	20.59	21.37	21.83	19.88	20.68	20.34	21.12	21.59
	8H	20.35	21.10	20.82	21.54	22.01	20.07	20.82	20.54	21.26	21.73
	12H	20.53	21.19	21.01	21.67	22.14	20.26	20.92	20.74	21.40	21.87
8H	4H	19.72	20.46	20.18	20.91	21.38	19.70	20.44	20.16	20.89	21.35
	6H	20.51	21.12	21.01	21.62	22.09	20.25	20.86	20.74	21.35	21.83
	8H	20.82	21.37	21.34	21.88	22.37	20.52	21.07	21.04	21.58	22.07
	12H	21.09	21.58	21.60	22.07	22.64	20.81	21.30	21.32	21.79	22.36
12H	4H	19.73	20.40	20.21	20.88	21.35	19.72	20.39	20.21	20.87	21.34
	6H	20.54	21.10	21.06	21.61	22.10	20.30	20.85	20.81	21.36	21.85
	8H	20.92	21.41	21.43	21.90	22.47	20.64	21.13	21.15	21.62	22.19