

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: P1059399

Luminaire Tested: S123RDRP-S775D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059399  
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-S775D940-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, 90 CRI LEDS  
Ballast/Driver: -

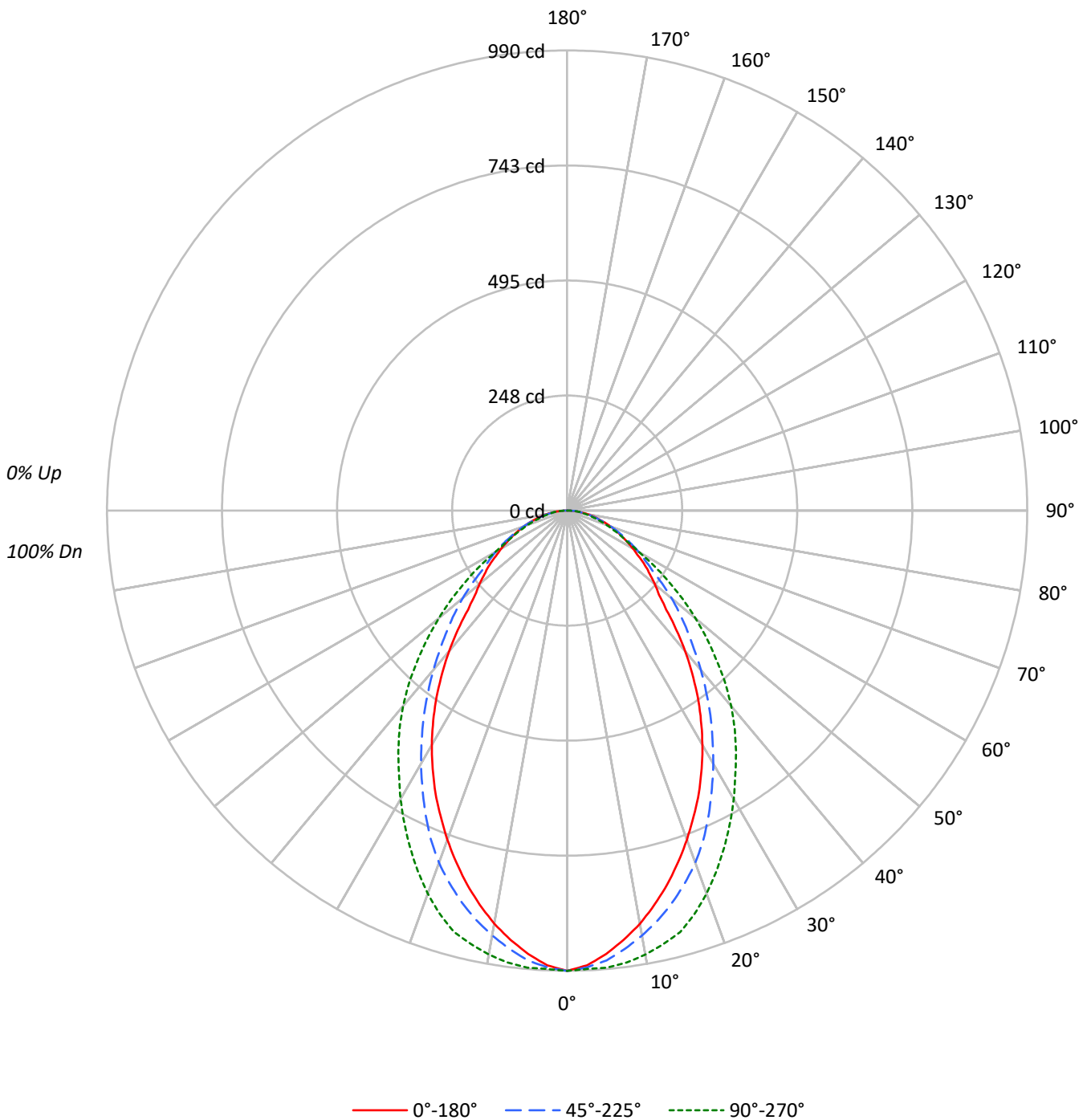
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1740.1 lumens  
Efficiency: N/A  
Efficacy: 67.4 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

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

	0°	45°	90°
0°	11629	11629	11629
5°	11291	11451	11633
10°	10761	11066	11563
15°	10122	10619	11416
20°	9415	10074	10958
25°	8690	9342	10357
30°	7893	8527	9718
35°	7024	7696	9077
40°	6061	6858	8412
45°	5010	6071	7543
50°	4499	5356	6586
55°	4170	4571	5460
60°	3842	4164	4183
65°	3576	3765	3504
70°	3365	3423	3073
75°	3171	3053	2709
80°	2996	2766	2536
85°	2870	3099	2870

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7543 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.7	5.3
10°-20°	247.1	14.2
20°-30°	334.3	19.2
30°-40°	343.5	19.7
40°-50°	288.5	16.6
50°-60°	206.8	11.9
60°-70°	131.7	7.6
70°-80°	72.3	4.2
80°-90°	24.1	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°	673.1	38.7
0°-40°	1016.6	58.4
0°-60°	1511.9	86.9
0°-90°	1740.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1740.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	958	975	972	978	987	90
15°	833	856	874	911	939	233
25°	671	696	721	760	799	307
35°	490	516	537	585	633	305
45°	302	328	366	418	454	238
55°	204	208	223	253	267	182
65°	129	136	136	128	126	128
75°	70	77	67	62	60	74
85°	21	22	23	24	21	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	990.3	990.3	990.3	990.3	990.3
2.5°	979.2	992.8	983.5	984.3	986.9
5°	957.9	974.9	971.5	978.3	986.9
7.5°	931.5	950.2	951.1	967.3	980.9
10°	902.5	922.1	928.1	952.8	969.8
12.5°	868.4	889.7	902.5	933.2	955.3
15°	832.6	855.6	873.5	911.0	939.1
17.5°	793.4	818.1	841.1	881.2	910.2
20°	753.4	779.8	806.2	843.7	876.9
22.5°	711.6	738.9	766.1	802.8	839.4
25°	670.7	696.3	721.0	760.2	799.4
27.5°	626.4	652.8	674.1	717.6	758.5
30°	582.1	608.5	628.9	674.1	716.7
32.5°	536.0	563.3	582.1	628.9	673.3
35°	490.0	516.4	536.9	584.6	633.2
37.5°	441.4	470.4	490.9	544.6	592.3
40°	395.4	422.7	447.4	503.7	548.8
42.5°	347.7	375.8	404.0	461.9	503.7
45°	301.7	328.1	365.6	418.4	454.2
47.5°	268.4	285.5	329.0	373.3	407.4
50°	246.3	253.1	293.2	332.4	360.5
52.5°	224.1	229.2	256.5	292.3	313.6
55°	203.7	207.9	223.3	253.1	266.7
57.5°	181.5	185.8	198.6	215.6	223.3
60°	163.6	167.0	177.3	179.8	178.1
62.5°	145.7	150.8	156.0	150.0	147.4
65°	128.7	136.4	135.5	127.8	126.1
67.5°	113.3	121.0	116.8	109.1	106.5
70°	98.0	105.7	99.7	92.0	89.5
72.5°	83.5	92.0	82.7	75.8	74.1
75°	69.9	76.7	67.3	62.2	59.7
77.5°	57.1	62.2	53.7	49.4	47.7
80°	44.3	47.7	40.9	38.3	37.5
82.5°	32.4	34.1	29.8	31.5	30.7
85°	21.3	22.2	23.0	23.9	21.3
87.5°	10.2	14.5	14.5	13.6	11.1
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	15.71	17.17	16.07	17.49	17.80	16.78	18.24	17.14	18.55	18.87
	3H	17.41	18.72	17.78	19.04	19.41	17.86	19.17	18.24	19.50	19.86
	4H	18.06	19.29	18.46	19.64	20.02	18.26	19.49	18.66	19.84	20.22
	6H	18.56	19.70	18.98	20.06	20.46	18.57	19.71	18.99	20.08	20.47
	8H	18.74	19.81	19.16	20.20	20.61	18.71	19.79	19.14	20.18	20.58
	12H	18.86	19.89	19.29	20.28	20.70	18.83	19.86	19.26	20.24	20.67
4H	2H	16.31	17.54	16.71	17.89	18.27	17.18	18.41	17.58	18.76	19.14
	3H	18.24	19.26	18.65	19.66	20.06	18.50	19.52	18.91	19.92	20.32
	4H	19.05	19.97	19.48	20.38	20.82	19.02	19.93	19.45	20.35	20.79
	6H	19.70	20.49	20.16	20.94	21.40	19.45	20.25	19.91	20.69	21.15
	8H	19.92	20.66	20.38	21.11	21.58	19.64	20.39	20.11	20.83	21.30
	12H	20.09	20.76	20.58	21.24	21.71	19.82	20.49	20.31	20.97	21.44
8H	4H	19.29	20.03	19.75	20.48	20.94	19.26	20.01	19.73	20.45	20.92
	6H	20.07	20.69	20.57	21.18	21.66	19.81	20.43	20.31	20.92	21.40
	8H	20.39	20.94	20.90	21.45	21.94	20.09	20.64	20.60	21.15	21.64
	12H	20.66	21.15	21.17	21.64	22.20	20.38	20.87	20.89	21.36	21.93
12H	4H	19.30	19.96	19.78	20.44	20.91	19.29	19.95	19.77	20.43	20.91
	6H	20.11	20.66	20.62	21.17	21.66	19.86	20.42	20.38	20.93	21.42
	8H	20.48	20.97	20.99	21.47	22.03	20.20	20.69	20.72	21.19	21.75