

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: P1059786

Luminaire Tested: S123RDRP-H775D930-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059786  
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-H775D930-X4F0-XX-UDD-WVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

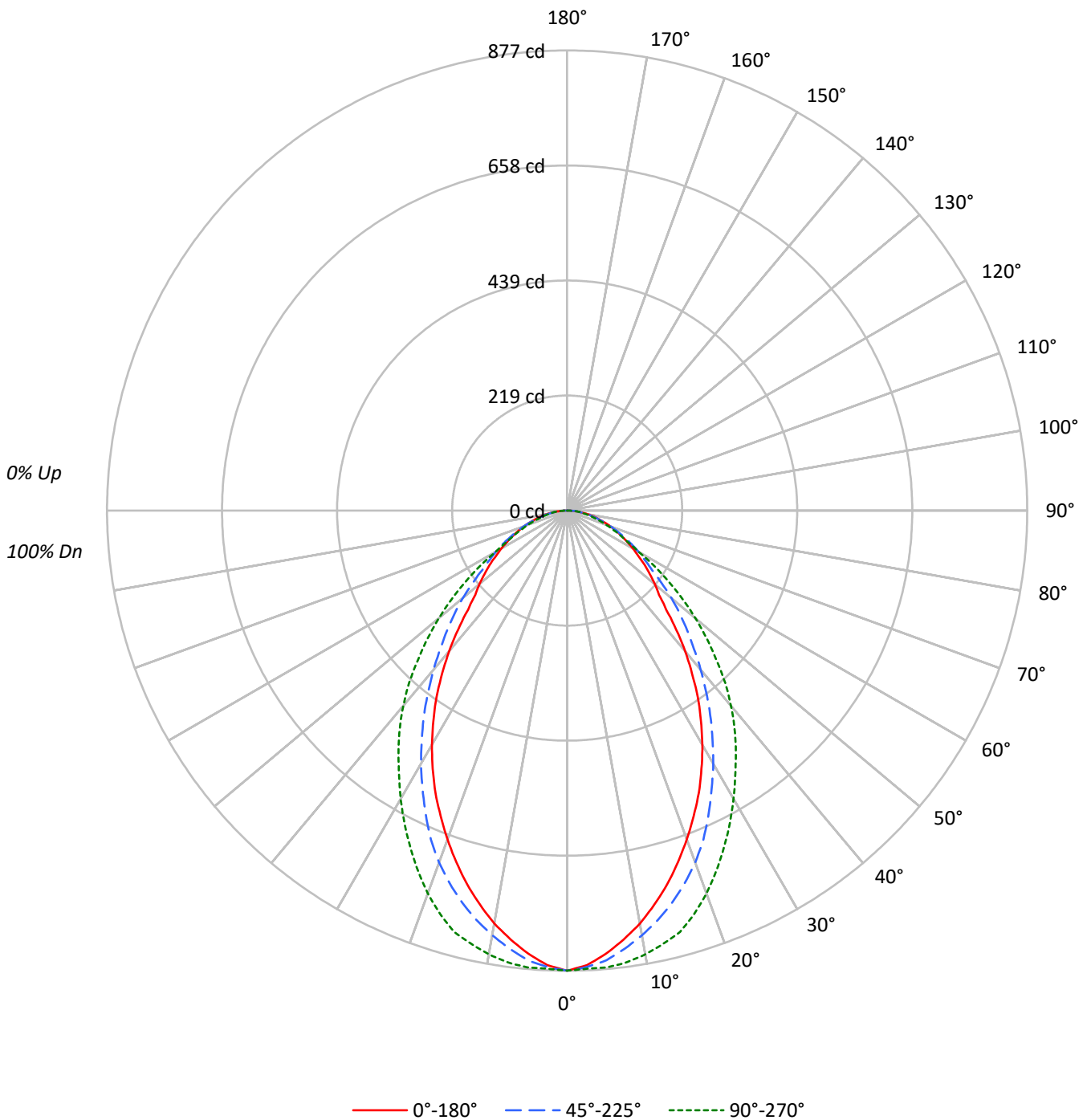
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1540.7 lumens  
Efficiency: N/A  
Efficacy: 65.6 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): 23.5  
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°	10296	10296	10296
5°	9997	10139	10300
10°	9528	9798	10239
15°	8962	9402	10108
20°	8335	8920	9702
25°	7693	8270	9171
30°	6988	7551	8605
35°	6220	6815	8036
40°	5367	6072	7448
45°	4436	5375	6679
50°	3984	4742	5831
55°	3691	4047	4836
60°	3403	3685	3704
65°	3165	3334	3104
70°	2980	3032	2719
75°	2808	2704	2395
80°	2651	2448	2245
85°	2546	2748	2546

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6679 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.2	5.3
10°-20°	218.8	14.2
20°-30°	296.0	19.2
30°-40°	304.1	19.7
40°-50°	255.4	16.6
50°-60°	183.1	11.9
60°-70°	116.6	7.6
70°-80°	64.1	4.2
80°-90°	21.4	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°	595.9	38.7
0°-40°	900.1	58.4
0°-60°	1338.7	86.9
0°-90°	1540.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1540.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	877	877	877	877	877	
5°	848	863	860	866	874	79
15°	737	758	773	807	832	207
25°	594	616	638	673	708	272
35°	434	457	475	518	561	270
45°	267	290	324	370	402	211
55°	180	184	198	224	236	161
65°	114	121	120	113	112	114
75°	62	68	60	55	53	66
85°	19	20	20	21	19	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	876.8	876.8	876.8	876.8	876.8
2.5°	867.0	879.0	870.7	871.5	873.8
5°	848.1	863.2	860.2	866.2	873.8
7.5°	824.7	841.3	842.1	856.4	868.5
10°	799.1	816.4	821.7	843.6	858.7
12.5°	768.9	787.7	799.1	826.2	845.8
15°	737.2	757.6	773.4	806.6	831.5
17.5°	702.5	724.4	744.7	780.2	805.9
20°	667.0	690.4	713.8	747.0	776.4
22.5°	630.0	654.2	678.3	710.8	743.2
25°	593.8	616.5	638.3	673.1	707.8
27.5°	554.6	578.0	596.8	635.3	671.5
30°	515.4	538.7	556.9	596.8	634.6
32.5°	474.6	498.8	515.4	556.9	596.1
35°	433.9	457.3	475.4	517.6	560.6
37.5°	390.9	416.5	434.6	482.2	524.4
40°	350.1	374.3	396.1	445.9	485.9
42.5°	307.9	332.8	357.7	409.0	445.9
45°	267.1	290.5	323.7	370.5	402.2
47.5°	237.7	252.8	291.3	330.5	360.7
50°	218.1	224.1	259.6	294.3	319.2
52.5°	198.4	203.0	227.1	258.8	277.7
55°	180.3	184.1	197.7	224.1	236.2
57.5°	160.7	164.5	175.8	190.9	197.7
60°	144.9	147.9	156.9	159.2	157.7
62.5°	129.0	133.6	138.1	132.8	130.5
65°	113.9	120.7	120.0	113.2	111.7
67.5°	100.4	107.1	103.4	96.6	94.3
70°	86.8	93.6	88.3	81.5	79.2
72.5°	73.9	81.5	73.2	67.2	65.6
75°	61.9	67.9	59.6	55.1	52.8
77.5°	50.6	55.1	47.5	43.8	42.3
80°	39.2	42.3	36.2	34.0	33.2
82.5°	28.7	30.2	26.4	27.9	27.2
85°	18.9	19.6	20.4	21.1	18.9
87.5°	9.1	12.8	12.8	12.1	9.8
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	15.29	16.75	15.65	17.06	17.38	16.36	17.82	16.72	18.13	18.45
	3H	16.98	18.29	17.36	18.62	18.99	17.44	18.75	17.82	19.08	19.44
	4H	17.64	18.87	18.04	19.21	19.59	17.84	19.07	18.24	19.42	19.80
	6H	18.14	19.27	18.55	19.64	20.03	18.15	19.29	18.56	19.65	20.05
	8H	18.31	19.39	18.74	19.78	20.18	18.29	19.37	18.71	19.76	20.16
	12H	18.44	19.47	18.87	19.85	20.28	18.41	19.44	18.84	19.82	20.25
4H	2H	15.89	17.12	16.29	17.46	17.84	16.76	17.99	17.16	18.34	18.72
	3H	17.82	18.83	18.23	19.23	19.64	18.08	19.10	18.49	19.50	19.90
	4H	18.63	19.54	19.06	19.96	20.40	18.60	19.51	19.03	19.93	20.37
	6H	19.28	20.07	19.73	20.52	20.98	19.03	19.83	19.49	20.27	20.73
	8H	19.50	20.24	19.96	20.69	21.16	19.22	19.96	19.68	20.41	20.88
	12H	19.67	20.33	20.15	20.81	21.29	19.40	20.07	19.89	20.55	21.02
8H	4H	18.86	19.61	19.33	20.05	20.52	18.84	19.59	19.31	20.03	20.50
	6H	19.65	20.27	20.15	20.76	21.24	19.39	20.01	19.89	20.50	20.98
	8H	19.97	20.52	20.48	21.03	21.52	19.67	20.22	20.18	20.73	21.22
	12H	20.23	20.72	20.75	21.22	21.78	19.96	20.45	20.47	20.94	21.51
12H	4H	18.88	19.54	19.36	20.02	20.49	18.87	19.53	19.35	20.01	20.48
	6H	19.69	20.24	20.20	20.75	21.24	19.44	20.00	19.96	20.51	21.00
	8H	20.06	20.55	20.57	21.04	21.61	19.78	20.27	20.29	20.77	21.33