

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: P1059353

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059353  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
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-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

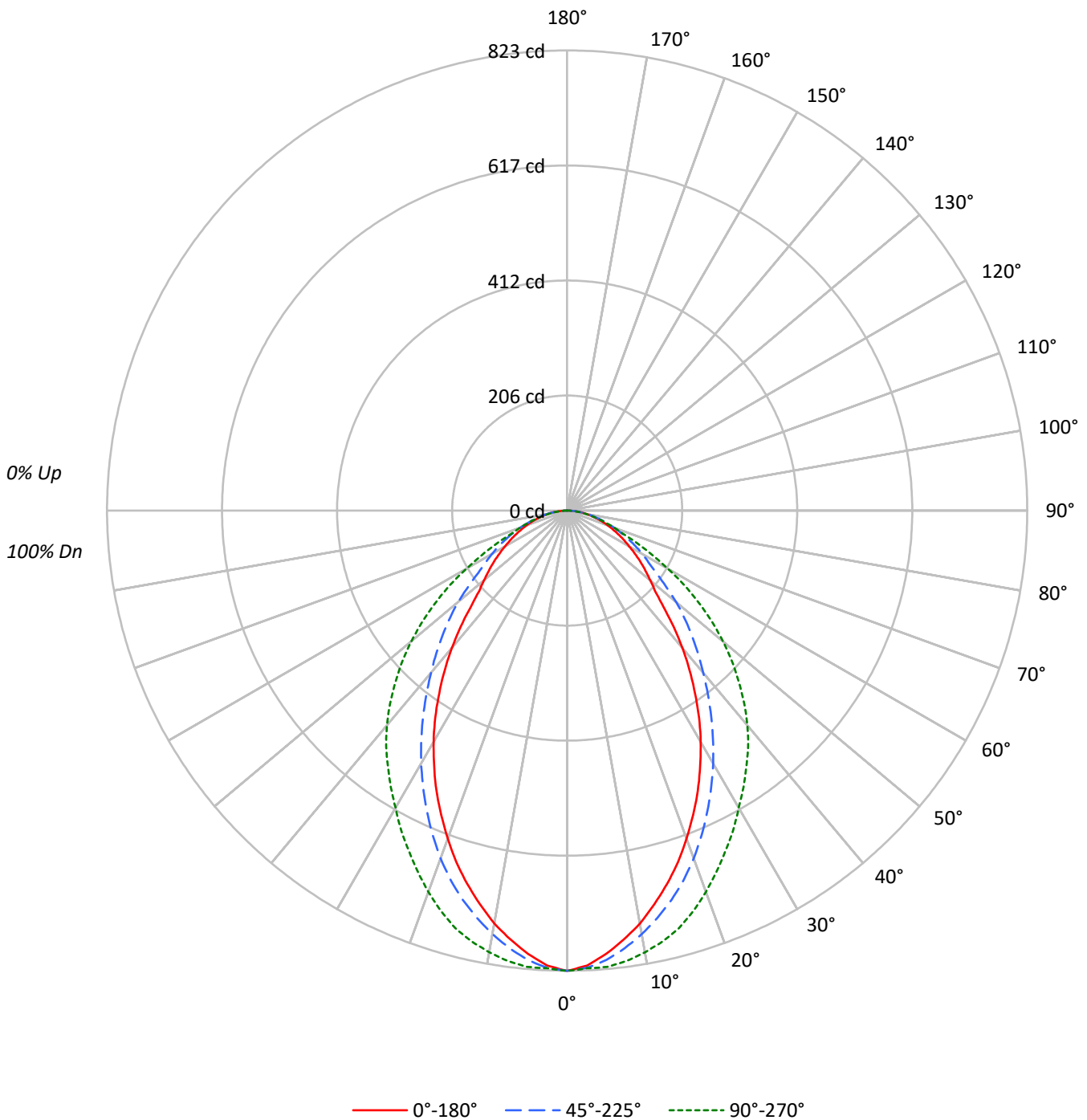
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1487.0 lumens  
Efficiency: N/A  
Efficacy: 57.6 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
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	100	97	100	97	94	96	93	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

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

	0°	45°	90°
0°	9666	9666	9666
5°	9385	9510	9657
10°	8941	9172	9563
15°	8400	8764	9397
20°	7803	8272	9068
25°	7165	7690	8690
30°	6477	7079	8323
35°	5714	6433	8010
40°	4911	5799	7692
45°	4039	5224	7212
50°	3544	4655	6646
55°	3280	3972	5888
60°	3015	3650	4873
65°	2815	3351	3834
70°	2650	3049	3049
75°	2495	2804	2627
80°	2346	2543	2218
85°	2210	2466	1684

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7212 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.1	5.1
10°-20°	204.1	13.7
20°-30°	276.7	18.6
30°-40°	289.3	19.5
40°-50°	250.9	16.9
50°-60°	186.6	12.6
60°-70°	119.8	8.1
70°-80°	64.2	4.3
80°-90°	19.4	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°	556.9	37.4
0°-40°	846.1	56.9
0°-60°	1283.6	86.3
0°-90°	1487.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1487.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	796	810	807	813	819	75
15°	691	707	721	750	773	194
25°	553	570	594	633	671	254
35°	399	418	449	506	559	249
45°	243	262	315	382	434	191
55°	160	164	194	249	288	143
65°	101	110	121	128	138	101
75°	55	64	62	59	58	58
85°	16	20	18	15	12	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	823.2	823.2	823.2	823.2	823.2
2.5°	814.5	826.1	818.4	818.4	819.3
5°	796.2	809.7	806.8	812.6	819.3
7.5°	774.0	788.5	789.4	802.9	812.6
10°	749.9	764.3	769.2	788.5	802.0
12.5°	720.9	737.3	746.0	770.1	789.4
15°	691.0	707.4	720.9	749.9	773.0
17.5°	659.1	675.5	692.9	725.7	750.8
20°	624.4	641.8	662.0	694.8	725.7
22.5°	588.7	607.0	628.3	664.0	698.7
25°	553.0	570.4	593.5	633.1	670.7
27.5°	515.3	533.7	557.8	601.2	643.7
30°	477.7	496.0	522.1	568.4	613.8
32.5°	439.1	457.4	485.4	537.5	586.8
35°	398.6	417.9	448.8	505.7	558.8
37.5°	360.0	378.3	413.0	475.8	531.8
40°	320.4	339.7	378.3	445.9	501.8
42.5°	281.8	301.1	346.5	414.0	469.0
45°	243.2	261.5	314.6	382.2	434.3
47.5°	213.3	226.8	284.7	348.4	400.5
50°	194.0	198.8	254.8	315.6	363.8
52.5°	176.6	180.5	222.0	282.8	326.2
55°	160.2	164.1	194.0	249.0	287.6
57.5°	143.8	148.6	172.7	214.2	249.0
60°	128.4	134.1	155.4	183.4	207.5
62.5°	114.8	121.6	138.0	155.4	171.8
65°	101.3	110.0	120.6	128.4	138.0
67.5°	88.8	98.4	104.2	106.2	107.1
70°	77.2	86.9	88.8	88.8	88.8
72.5°	65.6	76.2	74.3	73.3	72.4
75°	55.0	63.7	61.8	58.9	57.9
77.5°	44.4	52.1	49.2	47.3	44.4
80°	34.7	40.5	37.6	35.7	32.8
82.5°	26.1	29.9	27.0	25.1	22.2
85°	16.4	20.3	18.3	15.4	12.5
87.5°	8.7	11.6	9.7	8.7	4.8
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	14.67	16.15	15.03	16.46	16.78	17.42	18.91	17.79	19.22	19.53
	3H	16.38	17.71	16.76	18.03	18.40	18.44	19.77	18.82	20.10	20.46
	4H	17.04	18.28	17.44	18.63	19.01	18.81	20.06	19.21	20.40	20.78
	6H	17.54	18.69	17.95	19.06	19.45	19.06	20.21	19.48	20.58	20.97
	8H	17.72	18.81	18.14	19.20	19.60	19.14	20.23	19.56	20.62	21.02
	12H	17.84	18.89	18.28	19.27	19.70	19.17	20.22	19.60	20.60	21.03
4H	2H	15.44	16.69	15.84	17.04	17.42	17.69	18.94	18.09	19.29	19.67
	3H	17.37	18.40	17.78	18.80	19.20	18.95	19.98	19.36	20.38	20.78
	4H	18.18	19.11	18.61	19.52	19.96	19.44	20.37	19.87	20.78	21.22
	6H	18.82	19.63	19.28	20.07	20.53	19.82	20.62	20.27	21.07	21.53
	8H	19.05	19.80	19.51	20.25	20.71	19.93	20.68	20.39	21.13	21.60
	12H	19.22	19.89	19.70	20.37	20.85	20.00	20.67	20.48	21.15	21.62
8H	4H	18.50	19.25	18.96	19.70	20.17	19.63	20.38	20.09	20.83	21.30
	6H	19.29	19.91	19.79	20.41	20.88	20.12	20.74	20.61	21.23	21.71
	8H	19.62	20.18	20.13	20.69	21.18	20.29	20.85	20.81	21.36	21.85
	12H	19.90	20.39	20.41	20.88	21.45	20.42	20.92	20.93	21.41	21.98
12H	4H	18.52	19.20	19.01	19.68	20.15	19.64	20.32	20.13	20.80	21.27
	6H	19.34	19.91	19.86	20.42	20.90	20.15	20.71	20.67	21.22	21.71
	8H	19.74	20.23	20.25	20.73	21.29	20.38	20.88	20.89	21.37	21.94