

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: P1059096

Luminaire Tested: S123RDRP-S1165D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059096  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1165D835-X4F0-XX-UDD-BVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

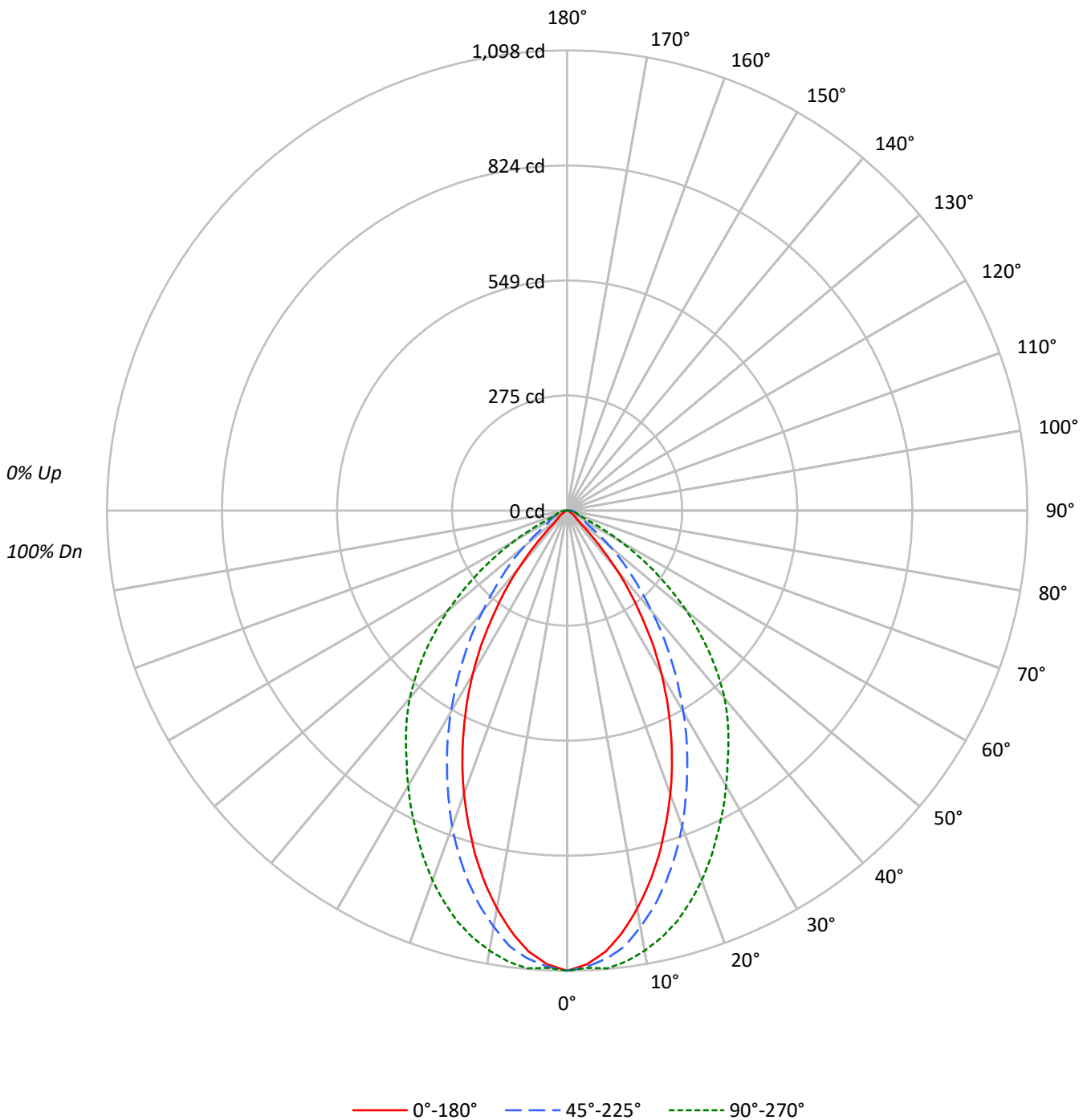
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1318.1 lumens  
Efficiency: N/A  
Efficacy: 31.5 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40

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

	0°	45°	90°
0°	12891	12891	12891
5°	12447	12651	12924
10°	11491	12024	12712
15°	10312	11118	12329
20°	8996	10023	11735
25°	7589	8784	11009
30°	6103	7512	10289
35°	4467	6183	9616
40°	2787	4821	8957
45°	1055	3594	7978
50°	501	2477	6799
55°	385	1359	5257
60°	270	1151	3455
65°	200	1003	1442
70°	199	941	941
75°	263	980	980
80°	392	1170	1075
85°	781	1940	1549

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7978 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.8	7.6
10°-20°	258.4	19.6
20°-30°	319.9	24.3
30°-40°	286.8	21.8
40°-50°	188.0	14.3
50°-60°	94.1	7.1
60°-70°	36.7	2.8
70°-80°	20.7	1.6
80°-90°	12.8	1.0
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°	679.1	51.5
0°-40°	965.8	73.3
0°-60°	1248.0	94.7
0°-90°	1318.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1318.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1098	1098	1098	1098	1098	
5°	1056	1073	1073	1085	1096	98
15°	848	883	915	975	1014	236
25°	586	622	678	775	850	267
35°	312	353	431	561	671	194
45°	64	102	216	371	480	60
55°	19	23	66	182	257	17
65°	7	22	36	48	52	7
75°	6	22	22	22	22	6
85°	6	14	14	14	12	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1097.8	1097.8	1097.8	1097.8	1097.8
2.5°	1083.4	1099.3	1089.2	1090.6	1092.1
5°	1056.0	1073.3	1073.3	1084.9	1096.4
7.5°	1014.2	1034.4	1048.8	1069.0	1084.9
10°	963.7	988.2	1008.4	1044.5	1066.1
12.5°	908.9	939.1	965.1	1012.7	1043.0
15°	848.3	882.9	914.6	975.2	1014.2
17.5°	783.3	818.0	859.8	930.5	978.1
20°	719.9	754.5	802.1	881.4	939.1
22.5°	653.5	689.6	740.1	828.1	895.9
25°	585.7	621.8	678.0	774.7	849.7
27.5°	517.9	554.0	617.4	722.8	805.0
30°	450.1	486.2	554.0	666.5	758.8
32.5°	382.3	421.2	491.9	614.6	712.7
35°	311.6	353.4	431.3	561.2	670.8
37.5°	246.7	285.6	373.6	515.0	629.0
40°	181.8	223.6	314.5	470.3	584.3
42.5°	118.3	163.0	261.1	421.2	533.8
45°	63.5	102.4	216.4	370.8	480.4
47.5°	34.6	56.3	174.6	317.4	425.6
50°	27.4	31.7	135.6	271.2	372.2
52.5°	23.1	26.0	96.7	227.9	313.0
55°	18.8	23.1	66.4	181.8	256.8
57.5°	15.9	20.2	51.9	141.4	200.5
60°	11.5	17.3	49.0	103.9	147.1
62.5°	8.7	18.8	43.3	72.1	96.7
65°	7.2	21.6	36.1	47.6	51.9
67.5°	5.8	23.1	31.7	30.3	30.3
70°	5.8	21.6	27.4	26.0	27.4
72.5°	5.8	23.1	24.5	23.1	24.5
75°	5.8	21.6	21.6	21.6	21.6
77.5°	5.8	20.2	20.2	18.8	18.8
80°	5.8	17.3	17.3	17.3	15.9
82.5°	5.8	15.9	15.9	15.9	13.0
85°	5.8	14.4	14.4	14.4	11.5
87.5°	4.3	13.0	14.4	13.0	8.7
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	1.24	2.50	1.61	2.81	3.12	15.49	16.74	15.85	17.06	17.37
	3H	3.57	4.69	3.96	5.02	5.38	15.57	16.68	15.95	17.01	17.38
	4H	4.68	5.71	5.08	6.06	6.45	15.64	16.68	16.05	17.03	17.41
	6H	5.67	6.62	6.09	6.99	7.39	15.75	16.70	16.17	17.07	17.46
	8H	6.16	7.05	6.59	7.45	7.85	15.81	16.71	16.24	17.10	17.50
	12H	6.72	7.58	7.15	7.96	8.39	15.89	16.75	16.32	17.13	17.56
4H	2H	4.49	5.53	4.90	5.88	6.26	15.34	16.38	15.75	16.73	17.11
	3H	6.81	7.65	7.22	8.06	8.46	15.52	16.36	15.93	16.77	17.17
	4H	8.18	8.93	8.61	9.35	9.80	15.67	16.42	16.10	16.84	17.29
	6H	9.27	9.92	9.73	10.36	10.83	15.89	16.55	16.36	16.99	17.46
	8H	9.72	10.33	10.20	10.78	11.25	16.02	16.63	16.49	17.08	17.55
	12H	10.22	10.76	10.71	11.24	11.72	16.19	16.73	16.68	17.22	17.69
8H	4H	9.15	9.76	9.62	10.21	10.68	15.67	16.28	16.14	16.72	17.19
	6H	10.67	11.17	11.18	11.67	12.15	16.00	16.50	16.51	17.00	17.48
	8H	11.45	11.90	11.97	12.41	12.91	16.24	16.69	16.76	17.20	17.70
	12H	12.25	12.65	12.77	13.15	13.72	16.57	16.97	17.09	17.46	18.04
12H	4H	9.33	9.86	9.81	10.35	10.82	15.65	16.19	16.14	16.67	17.15
	6H	10.99	11.44	11.51	11.95	12.45	16.02	16.47	16.55	16.99	17.48
	8H	11.95	12.34	12.46	12.84	13.41	16.33	16.73	16.85	17.23	17.80