

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: P1059075

Luminaire Tested: S123RDRP-S1000D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059075  
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-S1000D940-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**

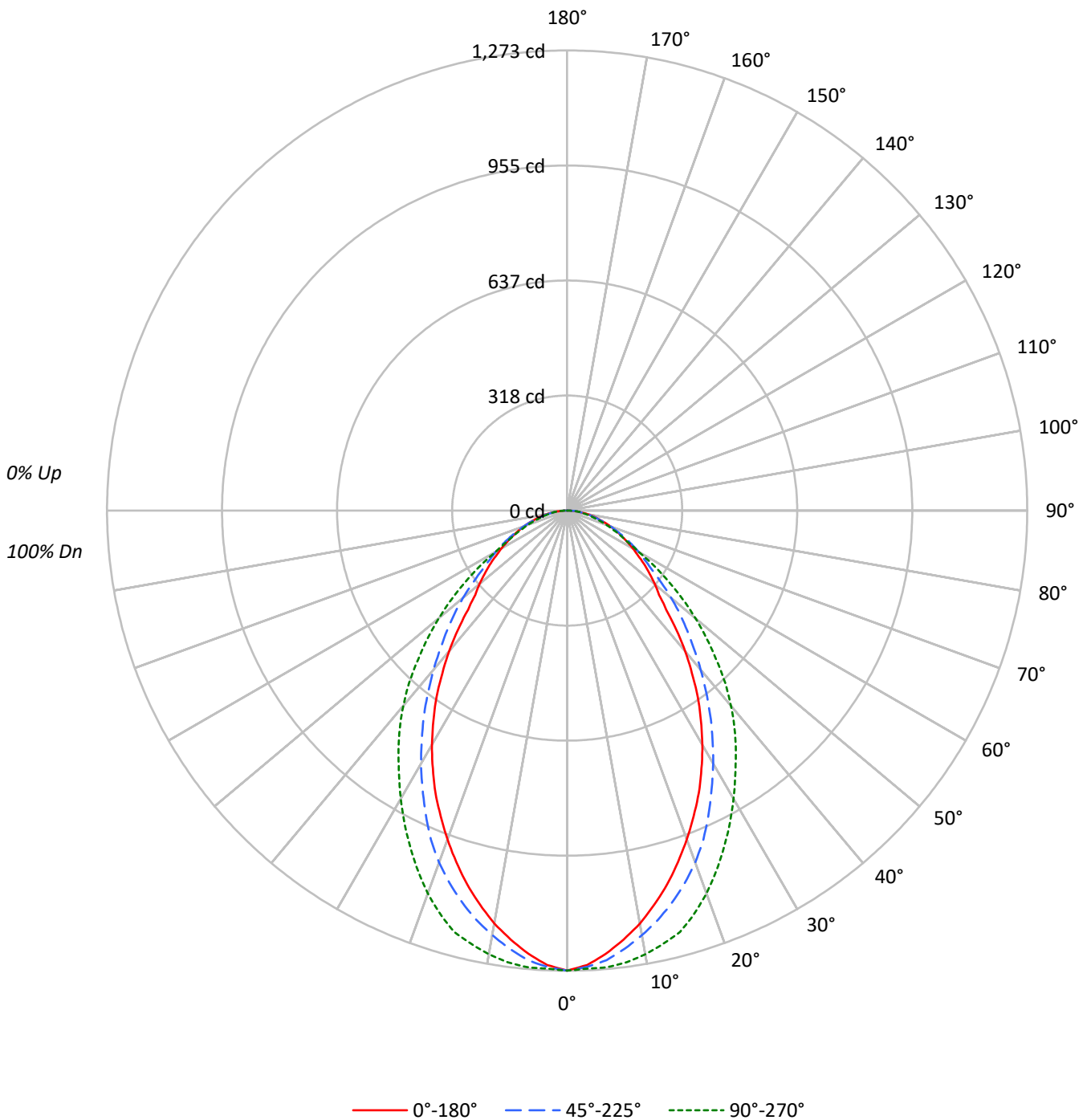
Lumens per Lamp: N/A  
Luminaire Lumens: 2236.1 lumens  
Efficiency: N/A  
Efficacy: 63.9 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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°	14943	14943	14943
5°	14510	14716	14949
10°	13829	14220	14860
15°	13008	13646	14672
20°	12097	12946	14082
25°	11167	12004	13310
30°	10142	10958	12488
35°	9027	9890	11664
40°	7790	8814	10811
45°	6438	7802	9693
50°	5782	6882	8464
55°	5358	5874	7018
60°	4939	5350	5376
65°	4596	4837	4504
70°	4322	4398	3948
75°	4074	3924	3480
80°	3848	3557	3259
85°	3692	3988	3692

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9693 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.9	5.3
10°-20°	317.5	14.2
20°-30°	429.6	19.2
30°-40°	441.4	19.7
40°-50°	370.7	16.6
50°-60°	265.8	11.9
60°-70°	169.2	7.6
70°-80°	93.0	4.2
80°-90°	31.0	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°	865.0	38.7
0°-40°	1306.4	58.4
0°-60°	1942.9	86.9
0°-90°	2236.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2236.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1273	1273	1273	1273	1273	
5°	1231	1253	1248	1257	1268	115
15°	1070	1100	1122	1171	1207	300
25°	862	895	926	977	1027	395
35°	630	664	690	751	814	392
45°	388	422	470	538	584	306
55°	262	267	287	325	343	234
65°	165	175	174	164	162	165
75°	90	99	86	80	77	95
85°	27	28	30	31	27	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1272.6	1272.6	1272.6	1272.6	1272.6
2.5°	1258.3	1275.9	1263.8	1264.9	1268.2
5°	1231.0	1252.9	1248.5	1257.2	1268.2
7.5°	1197.0	1221.1	1222.2	1243.0	1260.5
10°	1159.8	1185.0	1192.6	1224.4	1246.3
12.5°	1116.0	1143.3	1159.8	1199.2	1227.7
15°	1070.0	1099.5	1122.5	1170.7	1206.9
17.5°	1019.6	1051.4	1080.9	1132.4	1169.6
20°	968.1	1002.1	1036.0	1084.2	1126.9
22.5°	914.5	949.5	984.5	1031.6	1078.7
25°	861.9	894.7	926.5	976.9	1027.3
27.5°	804.9	838.9	866.3	922.1	974.7
30°	748.0	781.9	808.2	866.3	921.0
32.5°	688.9	723.9	748.0	808.2	865.2
35°	629.7	663.7	689.9	751.3	813.7
37.5°	567.3	604.5	630.8	699.8	761.1
40°	508.2	543.2	575.0	647.2	705.3
42.5°	446.8	483.0	519.1	593.6	647.2
45°	387.7	421.6	469.8	537.7	583.7
47.5°	345.0	366.9	422.7	479.7	523.5
50°	316.5	325.3	376.7	427.1	463.3
52.5°	288.0	294.6	329.6	375.6	403.0
55°	261.7	267.2	286.9	325.3	342.8
57.5°	233.3	238.7	255.2	277.1	286.9
60°	210.3	214.7	227.8	231.1	228.9
62.5°	187.3	193.8	200.4	192.7	189.5
65°	165.4	175.2	174.1	164.3	162.1
67.5°	145.7	155.5	150.0	140.2	136.9
70°	125.9	135.8	128.1	118.3	115.0
72.5°	107.3	118.3	106.2	97.5	95.3
75°	89.8	98.6	86.5	79.9	76.7
77.5°	73.4	79.9	69.0	63.5	61.3
80°	56.9	61.3	52.6	49.3	48.2
82.5°	41.6	43.8	38.3	40.5	39.4
85°	27.4	28.5	29.6	30.7	27.4
87.5°	13.1	18.6	18.6	17.5	14.2
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	16.58	18.04	16.94	18.36	18.67	17.65	19.11	18.02	19.43	19.74
	3H	18.28	19.59	18.66	19.92	20.28	18.74	20.05	19.11	20.37	20.74
	4H	18.93	20.16	19.33	20.51	20.89	19.14	20.36	19.54	20.71	21.09
	6H	19.43	20.57	19.85	20.94	21.33	19.45	20.58	19.86	20.95	21.34
	8H	19.61	20.68	20.03	21.07	21.48	19.58	20.66	20.01	21.05	21.45
	12H	19.73	20.76	20.16	21.15	21.58	19.70	20.73	20.13	21.12	21.55
4H	2H	17.18	18.41	17.58	18.76	19.14	18.05	19.28	18.45	19.63	20.01
	3H	19.11	20.13	19.52	20.53	20.93	19.37	20.39	19.78	20.79	21.19
	4H	19.92	20.84	20.35	21.25	21.69	19.89	20.81	20.32	21.22	21.66
	6H	20.57	21.36	21.03	21.81	22.27	20.32	21.12	20.78	21.56	22.02
	8H	20.79	21.53	21.25	21.98	22.45	20.51	21.26	20.98	21.70	22.17
	12H	20.96	21.63	21.45	22.11	22.58	20.70	21.36	21.18	21.84	22.31
8H	4H	20.16	20.90	20.62	21.35	21.82	20.14	20.88	20.60	21.33	21.79
	6H	20.95	21.56	21.44	22.05	22.53	20.68	21.30	21.18	21.79	22.27
	8H	21.26	21.81	21.77	22.32	22.81	20.96	21.51	21.48	22.02	22.51
	12H	21.53	22.02	22.04	22.51	23.08	21.25	21.74	21.76	22.23	22.80
12H	4H	20.17	20.83	20.65	21.31	21.79	20.16	20.83	20.65	21.31	21.78
	6H	20.98	21.53	21.50	22.04	22.53	20.74	21.29	21.25	21.80	22.29
	8H	21.36	21.84	21.87	22.34	22.90	21.08	21.57	21.59	22.06	22.62