

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060785

Luminaire Tested: S124RDR-H1195D950-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060785  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H1195D950-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

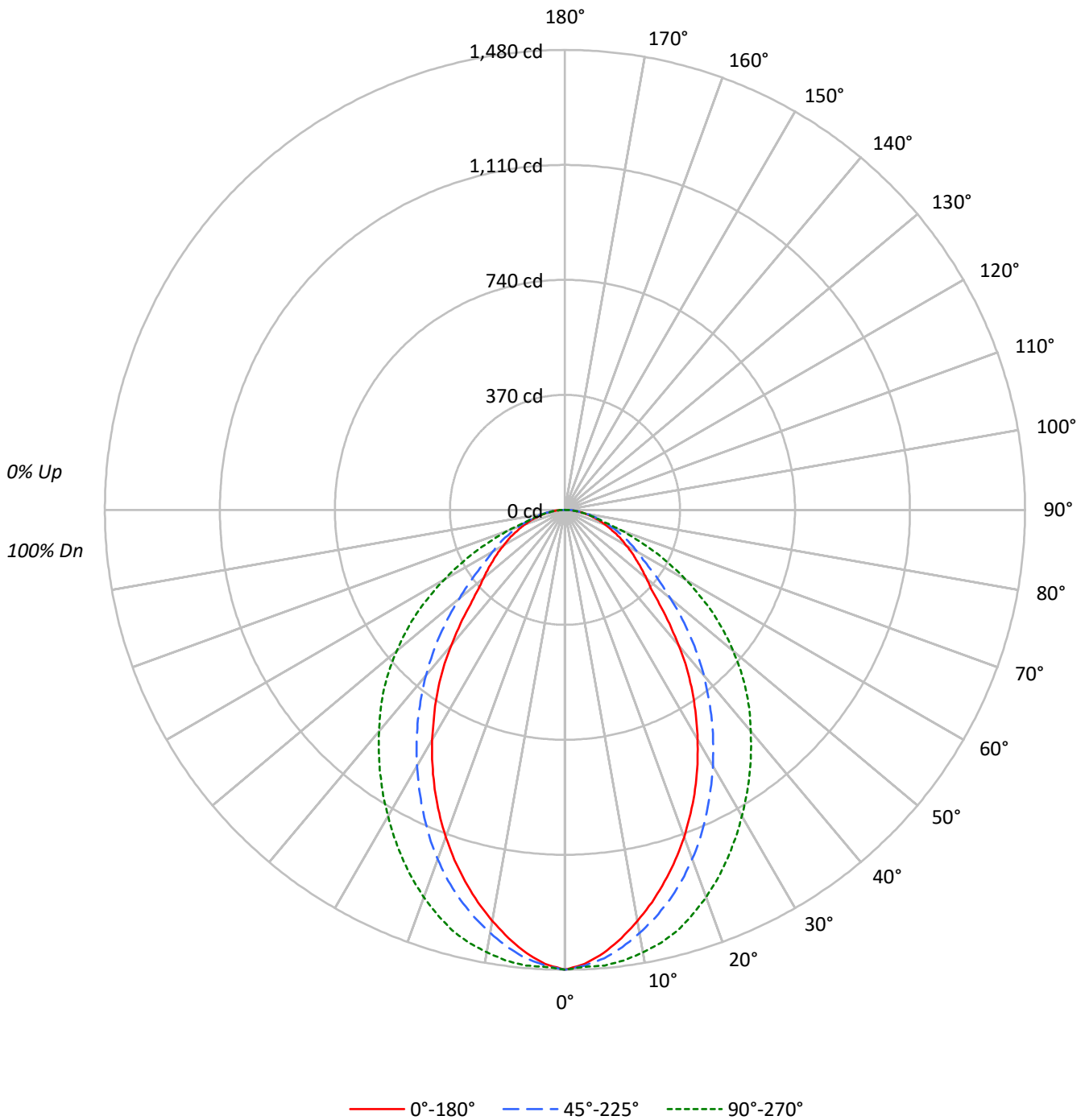
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2715.0 lumens  
Efficiency: N/A  
Efficacy: 74.4 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.5  
Input Voltage (V): 120  
Input Current (Ain): 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	101	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	70	80	74	69	77	72	68	75	70	67	65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31

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

	0°	45°	90°
0°	12741	12741	12741
5°	12370	12518	12721
10°	11747	12090	12640
15°	11043	11580	12490
20°	10271	10967	12155
25°	9418	10239	11757
30°	8489	9465	11313
35°	7515	8658	10888
40°	6388	7816	10451
45°	5230	6905	10046
50°	4578	5929	9455
55°	4207	5110	8748
60°	3901	4600	7712
65°	3655	4322	6457
70°	3429	3955	4847
75°	3224	3617	3530
80°	2985	3313	2985
85°	2717	3231	2589

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10046 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.7	5.0
10°-20°	367.9	13.6
20°-30°	502.9	18.5
30°-40°	528.5	19.5
40°-50°	458.7	16.9
50°-60°	346.0	12.7
60°-70°	224.3	8.3
70°-80°	115.1	4.2
80°-90°	34.9	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°	1007.6	37.1
0°-40°	1536.1	56.6
0°-60°	2340.7	86.2
0°-90°	2715.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2715.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1480	1480	1480	1480	1480	
5°	1431	1451	1448	1460	1472	134
15°	1239	1269	1299	1358	1401	347
25°	991	1027	1078	1160	1237	454
35°	715	754	824	934	1036	445
45°	430	470	567	708	825	338
55°	280	288	340	483	583	252
65°	179	183	212	257	317	179
75°	97	109	109	110	106	103
85°	28	34	33	31	26	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1479.6	1479.6	1479.6	1479.6	1479.6
2.5°	1462.6	1480.9	1467.8	1470.4	1471.7
5°	1431.1	1450.8	1448.2	1460.0	1471.7
7.5°	1390.6	1414.1	1419.4	1442.9	1462.6
10°	1343.4	1369.6	1382.7	1420.7	1445.6
12.5°	1293.7	1319.9	1343.4	1391.9	1427.2
15°	1238.7	1268.8	1298.9	1357.8	1401.0
17.5°	1181.1	1212.5	1250.5	1314.6	1365.7
20°	1120.8	1152.3	1196.8	1266.2	1326.4
22.5°	1056.7	1092.0	1139.2	1213.8	1284.5
25°	991.2	1026.6	1077.6	1160.1	1237.4
27.5°	923.1	959.8	1014.8	1106.4	1188.9
30°	853.7	893.0	951.9	1048.8	1137.8
32.5°	783.0	824.9	887.8	991.2	1088.1
35°	714.9	754.2	823.6	933.6	1035.7
37.5°	644.2	683.5	758.1	877.3	983.3
40°	568.3	611.5	695.3	818.4	929.7
42.5°	497.6	540.8	631.1	762.1	878.6
45°	429.5	470.1	567.0	708.4	824.9
47.5°	377.1	405.9	502.8	656.0	767.3
50°	341.7	354.8	442.6	598.4	705.8
52.5°	310.3	320.8	387.6	540.8	645.5
55°	280.2	288.1	340.4	483.2	582.7
57.5°	254.0	257.9	298.5	425.5	514.6
60°	226.5	231.8	267.1	366.6	447.8
62.5°	204.3	206.9	239.6	310.3	381.0
65°	179.4	183.3	212.1	256.6	316.9
67.5°	157.1	163.7	183.3	209.5	250.1
70°	136.2	145.3	157.1	170.2	192.5
72.5°	116.5	127.0	133.6	138.8	134.9
75°	96.9	108.7	108.7	110.0	106.1
77.5°	78.6	89.0	87.7	86.4	81.2
80°	60.2	69.4	66.8	65.5	60.2
82.5°	44.5	51.1	48.4	47.1	40.6
85°	27.5	34.0	32.7	31.4	26.2
87.5°	13.1	19.6	18.3	17.0	11.8
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	15.34	16.83	15.71	17.14	17.46	19.08	20.57	19.45	20.88	21.20
	3H	17.01	18.34	17.39	18.67	19.03	20.21	21.54	20.59	21.87	22.23
	4H	17.68	18.93	18.08	19.28	19.66	20.50	21.75	20.90	22.10	22.48
	6H	18.19	19.34	18.60	19.71	20.10	20.70	21.86	21.12	22.22	22.62
	8H	18.36	19.46	18.79	19.85	20.25	20.76	21.86	21.19	22.25	22.65
	12H	18.48	19.53	18.91	19.91	20.34	20.79	21.84	21.22	22.22	22.65
4H	2H	16.14	17.38	16.54	17.73	18.11	19.25	20.50	19.65	20.85	21.22
	3H	18.01	19.04	18.42	19.44	19.85	20.58	21.61	20.99	22.01	22.42
	4H	18.81	19.74	19.25	20.16	20.60	21.00	21.93	21.43	22.34	22.78
	6H	19.46	20.27	19.91	20.71	21.17	21.32	22.13	21.77	22.57	23.03
	8H	19.68	20.44	20.14	20.88	21.35	21.41	22.17	21.88	22.61	23.08
	12H	19.84	20.52	20.33	21.00	21.47	21.48	22.16	21.97	22.64	23.11
8H	4H	19.16	19.92	19.62	20.36	20.83	21.13	21.89	21.59	22.33	22.80
	6H	19.95	20.58	20.45	21.07	21.55	21.55	22.17	22.04	22.66	23.14
	8H	20.27	20.83	20.78	21.34	21.83	21.70	22.27	22.22	22.78	23.26
	12H	20.53	21.03	21.04	21.52	22.09	21.84	22.34	22.35	22.83	23.40
12H	4H	19.19	19.87	19.67	20.35	20.82	21.13	21.81	21.62	22.29	22.76
	6H	20.01	20.57	20.53	21.08	21.57	21.57	22.13	22.08	22.64	23.13
	8H	20.40	20.89	20.91	21.39	21.95	21.78	22.27	22.29	22.77	23.33