

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: P1061864

Luminaire Tested: S125RDR-H1090D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061864  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-85)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H1090D840-X4F0-XX-UDD-WVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

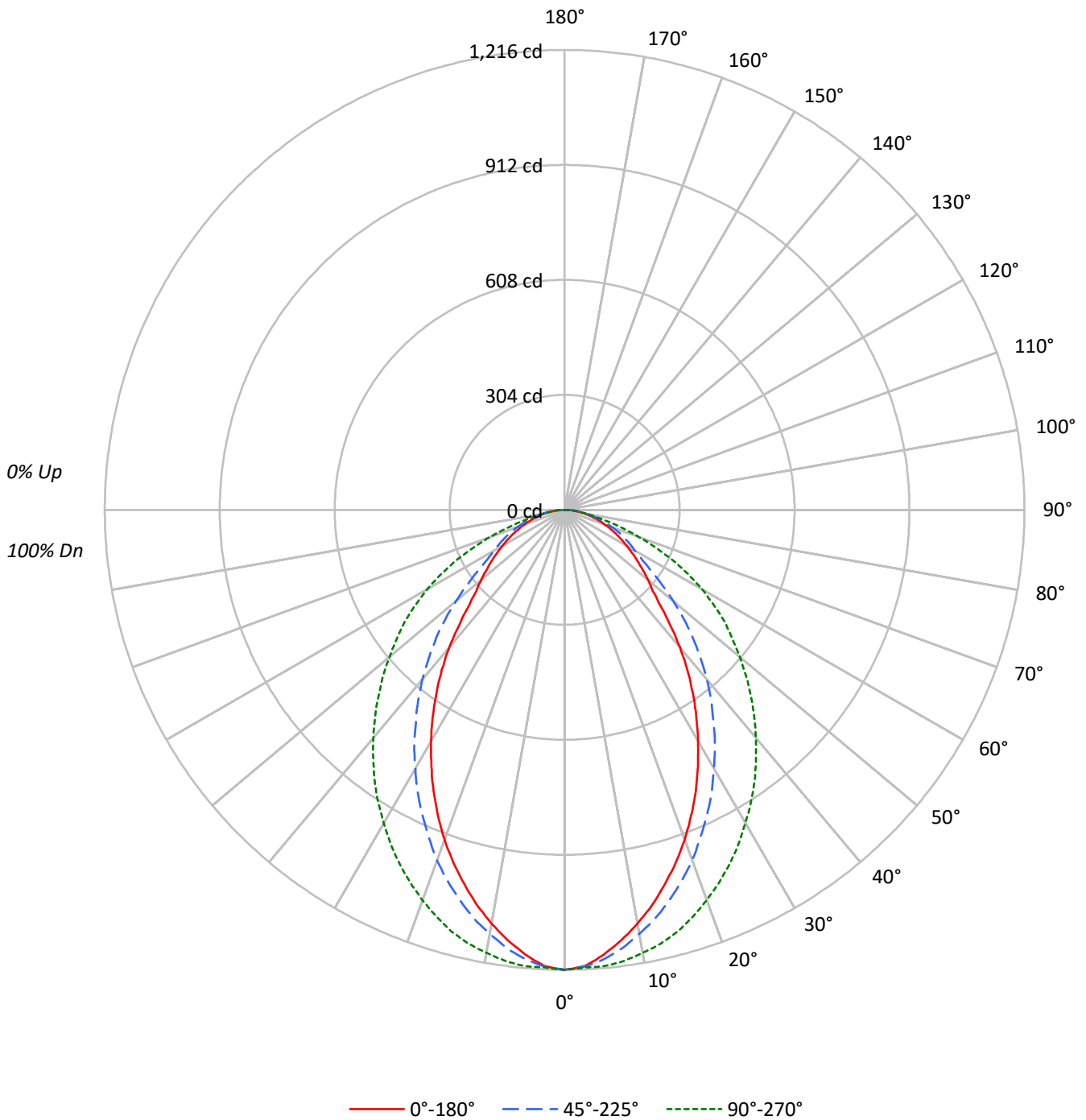
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2279.8 lumens  
Efficiency: N/A  
Efficacy: 73.1 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	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			100																
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86			86																
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74			74																
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64			64																
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56			56																
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50																
6	74	62	54	48	72	61	53	48	59	52	47	58	52	47	56	51	46	44			44																
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40			40																
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38	36			36																
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33			33																
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30			30																

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

	0°	45°	90°
0°	8373	8373	8373
5°	8162	8246	8372
10°	7763	7959	8316
15°	7301	7621	8227
20°	6801	7228	8047
25°	6230	6765	7845
30°	5612	6278	7601
35°	4963	5769	7363
40°	4259	5253	7076
45°	3478	4673	6779
50°	3084	4008	6468
55°	2829	3325	6198
60°	2610	2944	5771
65°	2434	2830	5147
70°	2275	2690	4207
75°	2102	2522	3102
80°	1975	2359	2264
85°	1825	2307	1920

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6779 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.5	4.9
10°-20°	303.2	13.3
20°-30°	416.6	18.3
30°-40°	441.6	19.4
40°-50°	385.4	16.9
50°-60°	292.8	12.8
60°-70°	196.2	8.6
70°-80°	101.2	4.4
80°-90°	30.3	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°	832.3	36.5
0°-40°	1273.9	55.9
0°-60°	1952.2	85.6
0°-90°	2279.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2279.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1216	1216	1216	1216	1216	
5°	1181	1193	1193	1202	1211	111
15°	1024	1044	1069	1116	1154	287
25°	820	846	890	965	1033	376
35°	590	624	686	784	876	368
45°	357	392	480	594	696	282
55°	236	243	277	407	516	211
65°	149	153	174	232	316	148
75°	79	84	95	101	117	85
85°	23	29	29	27	24	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1216.1	1216.1	1216.1	1216.1	1216.1
2.5°	1207.6	1216.1	1208.8	1208.8	1211.3
5°	1180.9	1193.1	1193.1	1201.6	1211.3
7.5°	1148.1	1161.5	1168.8	1188.2	1202.8
10°	1110.4	1125.0	1138.4	1167.5	1189.4
12.5°	1070.3	1086.1	1106.8	1144.5	1174.8
15°	1024.2	1043.6	1069.1	1116.5	1154.2
17.5°	978.0	997.5	1029.0	1084.9	1127.4
20°	928.2	948.9	986.5	1047.3	1098.3
22.5°	874.7	897.8	937.9	1007.2	1066.7
25°	820.1	845.6	890.5	964.6	1032.7
27.5°	763.0	793.3	841.9	920.9	996.2
30°	705.9	736.2	789.7	876.0	956.1
32.5°	648.8	681.6	739.9	831.0	917.3
35°	590.5	624.5	686.4	783.6	876.0
37.5°	533.4	567.4	636.6	737.5	831.0
40°	473.8	509.1	584.4	690.1	787.3
42.5°	413.1	450.7	532.1	641.5	742.3
45°	357.2	392.4	479.9	594.1	696.2
47.5°	315.9	339.0	427.7	545.5	651.2
50°	287.9	300.1	374.2	498.1	603.8
52.5°	260.0	269.7	324.4	449.5	558.9
55°	235.7	243.0	277.0	407.0	516.3
57.5°	211.4	218.7	240.6	364.5	466.5
60°	189.5	195.6	213.8	319.5	419.1
62.5°	168.9	173.7	193.2	277.0	368.1
65°	149.4	153.1	173.7	232.1	315.9
67.5°	130.0	133.6	154.3	189.5	260.0
70°	113.0	114.2	133.6	154.3	209.0
72.5°	96.0	97.2	113.0	125.1	160.4
75°	79.0	83.8	94.8	100.8	116.6
77.5°	64.4	70.5	76.5	79.0	79.0
80°	49.8	57.1	59.5	59.5	57.1
82.5°	36.4	42.5	43.7	41.3	38.9
85°	23.1	29.2	29.2	26.7	24.3
87.5°	10.9	15.8	15.8	14.6	10.9
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	13.99	15.49	14.36	15.80	16.12	17.92	19.41	18.28	19.73	20.04
	3H	15.56	16.90	15.94	17.23	17.59	19.34	20.68	19.72	21.01	21.37
	4H	16.17	17.43	16.57	17.78	18.16	19.75	21.01	20.15	21.36	21.74
	6H	16.67	17.83	17.08	18.20	18.59	19.97	21.13	20.38	21.50	21.89
	8H	16.84	17.95	17.27	18.34	18.74	20.03	21.14	20.46	21.53	21.93
	12H	16.97	18.03	17.40	18.41	18.84	20.06	21.12	20.49	21.51	21.94
4H	2H	14.73	15.99	15.13	16.34	16.71	18.04	19.30	18.44	19.65	20.03
	3H	16.51	17.55	16.92	17.95	18.35	19.65	20.70	20.06	21.10	21.50
	4H	17.24	18.18	17.67	18.60	19.04	20.18	21.12	20.61	21.54	21.98
	6H	17.88	18.70	18.34	19.14	19.60	20.52	21.34	20.98	21.78	22.24
	8H	18.11	18.87	18.57	19.31	19.78	20.62	21.39	21.09	21.83	22.30
	12H	18.28	18.96	18.76	19.44	19.91	20.70	21.38	21.18	21.86	22.33
8H	4H	17.64	18.41	18.11	18.85	19.32	20.29	21.05	20.75	21.50	21.96
	6H	18.43	19.06	18.93	19.55	20.03	20.73	21.36	21.22	21.85	22.33
	8H	18.75	19.32	19.27	19.83	20.32	20.88	21.45	21.40	21.96	22.45
	12H	19.03	19.53	19.54	20.02	20.59	21.02	21.52	21.53	22.01	22.58
12H	4H	17.69	18.37	18.17	18.85	19.32	20.29	20.97	20.77	21.45	21.92
	6H	18.51	19.08	19.03	19.59	20.08	20.74	21.31	21.26	21.82	22.31
	8H	18.91	19.41	19.42	19.90	20.47	20.95	21.45	21.46	21.94	22.51