

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: P1056362

Luminaire Tested: S125R3DR-S1090D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056362  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-S1090D835-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

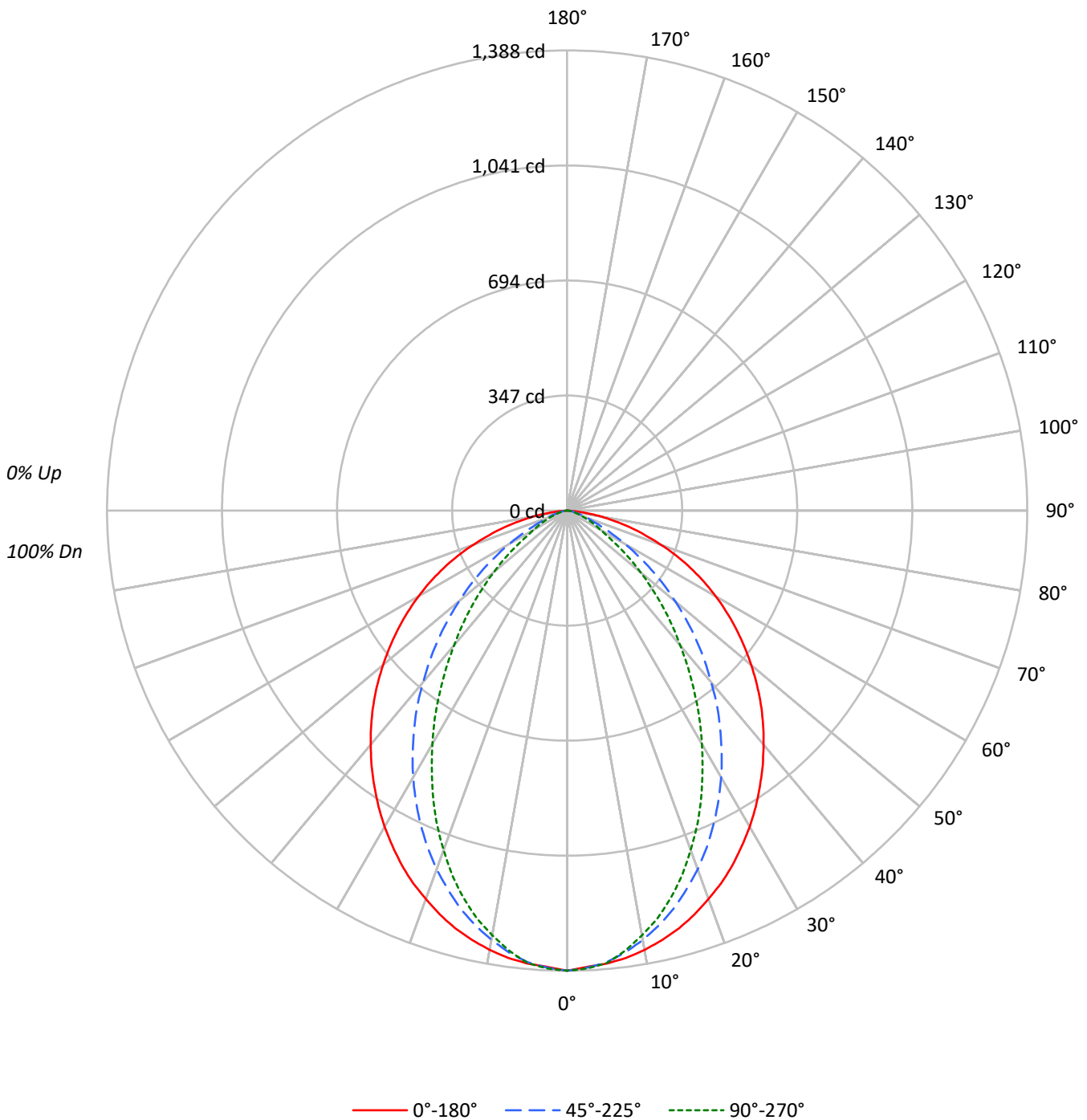
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2508.5 lumens  
Efficiency: N/A  
Efficacy: 72.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.7  
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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	9812	9812	9812
5°	9731	9703	9721
10°	9659	9437	9336
15°	9546	9095	8850
20°	9377	8662	8198
25°	9202	8150	7458
30°	8990	7584	6640
35°	8750	6943	5778
40°	8503	6237	4885
45°	8261	5499	4047
50°	7971	4679	3180
55°	7666	3801	2312
60°	7322	2835	1653
65°	6878	1870	1290
70°	6215	1302	903
75°	5405	841	702
80°	4238	627	574
85°	2190	519	414

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8261 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.3	5.2
10°-20°	351.4	14.0
20°-30°	486.0	19.4
30°-40°	514.9	20.5
40°-50°	449.4	17.9
50°-60°	319.6	12.7
60°-70°	177.7	7.1
70°-80°	68.3	2.7
80°-90°	11.8	0.5
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°	966.7	38.5
0°-40°	1481.5	59.1
0°-60°	2250.6	89.7
0°-90°	2508.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2508.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1388	1388	1388	1388	1388	
5°	1371	1381	1367	1364	1370	130
15°	1304	1293	1243	1216	1209	367
25°	1180	1140	1045	980	956	543
35°	1014	944	804	707	670	634
45°	826	727	550	440	405	637
55°	622	499	308	213	188	556
65°	411	270	112	82	77	406
75°	198	77	31	26	26	210
85°	27	8	6	5	5	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1387.9	1387.9	1387.9	1387.9	1387.9
2.5°	1377.6	1391.7	1380.2	1381.4	1382.7
5°	1371.2	1381.4	1367.3	1363.5	1369.9
7.5°	1360.9	1368.6	1344.2	1335.2	1339.0
10°	1345.5	1348.0	1314.6	1301.8	1300.5
12.5°	1326.2	1322.3	1281.2	1260.6	1259.4
15°	1304.3	1292.8	1242.7	1215.7	1209.2
17.5°	1277.4	1259.4	1197.7	1163.0	1152.7
20°	1246.5	1222.1	1151.4	1106.4	1089.7
22.5°	1215.7	1182.3	1100.0	1043.5	1025.5
25°	1179.7	1139.9	1044.8	980.5	956.1
27.5°	1141.1	1093.6	988.2	913.7	884.1
30°	1101.3	1046.0	929.1	845.6	813.4
32.5°	1058.9	995.9	867.4	776.2	742.8
35°	1013.9	944.5	804.5	706.8	669.5
37.5°	968.9	891.8	742.8	638.7	600.1
40°	921.4	837.9	675.9	569.3	529.4
42.5°	875.1	782.6	613.0	503.7	467.8
45°	826.3	727.3	550.0	439.5	404.8
47.5°	776.2	669.5	487.0	379.1	344.4
50°	724.8	613.0	425.4	320.0	289.1
52.5°	673.4	556.4	367.5	263.4	236.5
55°	622.0	498.6	308.4	213.3	187.6
57.5°	570.6	442.1	253.2	167.1	143.9
60°	517.9	384.2	200.5	123.4	116.9
62.5°	465.2	327.7	155.5	101.5	96.4
65°	411.2	269.9	111.8	82.2	77.1
67.5°	357.2	217.2	81.0	63.0	59.1
70°	300.7	165.8	63.0	47.5	43.7
72.5°	246.7	119.5	45.0	34.7	33.4
75°	197.9	77.1	30.8	25.7	25.7
77.5°	149.1	46.3	21.8	19.3	19.3
80°	104.1	27.0	15.4	14.1	14.1
82.5°	63.0	14.1	10.3	9.0	9.0
85°	27.0	7.7	6.4	5.1	5.1
87.5°	5.1	2.6	2.6	2.6	2.6
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	19.10	20.54	19.46	20.85	21.17	11.73	13.18	12.10	13.49	13.81
	3H	20.65	21.94	21.03	22.27	22.63	12.30	13.58	12.68	13.91	14.28
	4H	21.18	22.38	21.58	22.73	23.11	12.42	13.62	12.82	13.97	14.35
	6H	21.51	22.62	21.93	22.99	23.38	12.49	13.59	12.90	13.96	14.35
	8H	21.60	22.65	22.02	23.04	23.44	12.49	13.54	12.92	13.93	14.34
	12H	21.62	22.63	22.05	23.01	23.44	12.48	13.49	12.91	13.87	14.30
4H	2H	18.99	20.19	19.39	20.54	20.92	12.30	13.50	12.70	13.85	14.23
	3H	20.66	21.65	21.07	22.05	22.45	12.97	13.96	13.38	14.36	14.76
	4H	21.21	22.09	21.64	22.51	22.95	13.13	14.01	13.56	14.43	14.87
	6H	21.60	22.36	22.06	22.81	23.27	13.24	14.00	13.70	14.45	14.91
	8H	21.71	22.42	22.17	22.86	23.33	13.25	13.96	13.72	14.41	14.88
	12H	21.75	22.39	22.24	22.87	23.34	13.25	13.89	13.74	14.37	14.84
8H	4H	21.11	21.82	21.58	22.27	22.74	13.40	14.11	13.86	14.56	15.03
	6H	21.50	22.08	22.00	22.58	23.06	13.53	14.12	14.03	14.61	15.09
	8H	21.61	22.13	22.12	22.64	23.13	13.56	14.08	14.08	14.60	15.09
	12H	21.67	22.13	22.18	22.63	23.19	13.58	14.04	14.09	14.54	15.11
12H	4H	21.07	21.71	21.56	22.19	22.66	13.41	14.05	13.90	14.53	15.00
	6H	21.44	21.97	21.96	22.48	22.97	13.54	14.07	14.06	14.58	15.07
	8H	21.57	22.04	22.09	22.53	23.10	13.60	14.07	14.11	14.56	15.13