

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: P1056363

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056363
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
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-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

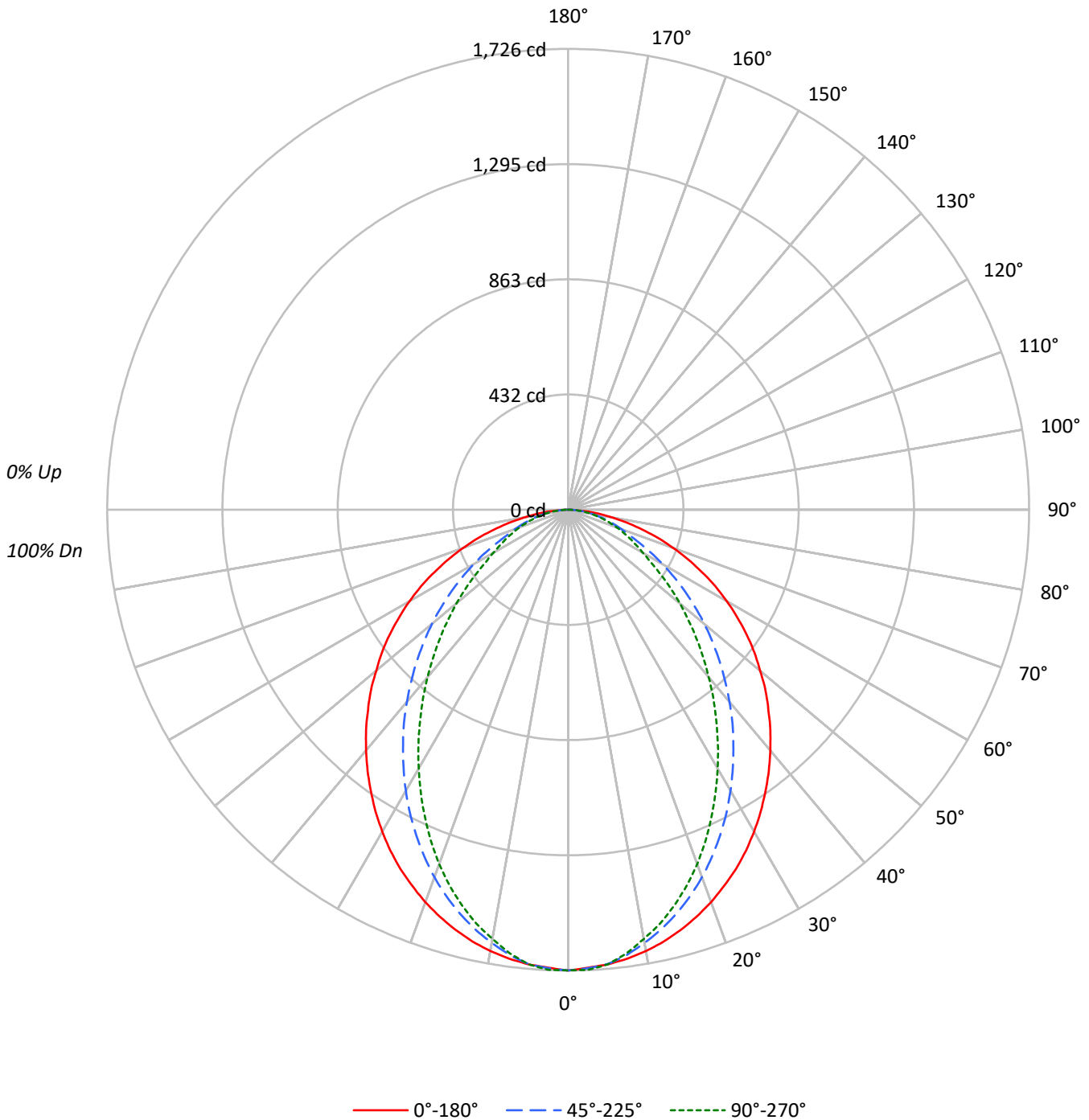
Lumens per Lamp: N/A
Luminaire Lumens: 3657.9 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88					86				
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75					73				
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65					63				
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57					55				
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50					48				
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45					43				
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40					38				
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36					34				
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33					31				
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30					28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12200	12200	12200
5°	12128	12120	12128
10°	12047	11826	11715
15°	11926	11465	11230
20°	11765	11021	10625
25°	11587	10495	9903
30°	11360	9924	9137
35°	11112	9305	8340
40°	10863	8669	7554
45°	10599	8004	6770
50°	10317	7321	5993
55°	10057	6573	5211
60°	9702	5778	4578
65°	9222	4901	4255
70°	8658	4382	3985
75°	7828	4037	3756
80°	6803	3664	3505
85°	5313	3228	3228

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10599 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.5	4.4
10°-20°	443.4	12.1
20°-30°	626.3	17.1
30°-40°	689.5	18.8
40°-50°	643.1	17.6
50°-60°	513.4	14.0
60°-70°	345.5	9.4
70°-80°	184.0	5.0
80°-90°	51.2	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°	1231.2	33.7
0°-40°	1920.7	52.5
0°-60°	3077.2	84.1
0°-90°	3657.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3657.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1726	1726	1726	1726	1726	
5°	1709	1723	1708	1703	1709	162
15°	1630	1620	1566	1540	1534	459
25°	1486	1441	1346	1286	1270	684
35°	1288	1212	1078	993	966	806
45°	1060	960	801	703	677	819
55°	816	693	533	448	423	728
65°	551	430	293	260	254	547
75°	287	190	148	139	138	305
85°	66	45	40	41	40	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1725.8	1725.8	1725.8	1725.8	1725.8
2.5°	1716.8	1731.0	1719.4	1722.0	1724.6
5°	1709.1	1723.3	1707.9	1702.7	1709.1
7.5°	1696.3	1707.9	1682.2	1670.6	1675.7
10°	1678.3	1686.0	1647.5	1632.0	1632.0
12.5°	1656.4	1656.4	1610.2	1588.3	1588.3
15°	1629.5	1620.5	1566.5	1539.5	1534.4
17.5°	1598.6	1581.9	1517.7	1483.0	1476.5
20°	1563.9	1536.9	1465.0	1420.0	1412.3
22.5°	1525.4	1490.7	1407.1	1351.9	1342.9
25°	1485.5	1440.6	1345.5	1286.4	1269.6
27.5°	1440.6	1386.6	1282.5	1215.7	1195.1
30°	1391.7	1330.0	1215.7	1141.1	1119.3
32.5°	1341.6	1272.2	1147.6	1067.9	1043.5
35°	1287.6	1211.8	1078.2	993.4	966.4
37.5°	1233.7	1151.4	1010.1	921.4	893.1
40°	1177.1	1087.2	939.4	848.1	818.6
42.5°	1120.6	1024.2	870.0	777.5	746.6
45°	1060.2	959.9	800.6	702.9	677.2
47.5°	1002.4	894.4	732.5	637.4	609.1
50°	938.1	826.3	665.7	570.6	544.9
52.5°	879.0	759.5	598.8	510.2	483.2
55°	816.0	692.7	533.3	448.5	422.8
57.5°	750.5	625.8	470.3	390.7	366.2
60°	686.2	559.0	408.7	335.4	323.8
62.5°	620.7	496.0	350.8	294.3	286.6
65°	551.3	430.5	293.0	259.6	254.4
67.5°	485.8	367.5	246.7	227.5	222.3
70°	418.9	304.6	212.0	195.3	192.8
72.5°	353.4	244.2	178.6	167.1	164.5
75°	286.6	190.2	147.8	138.8	137.5
77.5°	224.9	142.6	116.9	113.1	110.5
80°	167.1	106.7	90.0	87.4	86.1
82.5°	114.4	73.2	64.3	64.3	61.7
85°	65.5	45.0	39.8	41.1	39.8
87.5°	24.4	19.3	18.0	19.3	19.3
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	19.98	21.52	20.34	21.83	22.15	16.36	17.90	16.73	18.22	18.53
	3H	21.76	23.15	22.14	23.48	23.84	17.84	19.22	18.22	19.55	19.91
	4H	22.42	23.72	22.82	24.07	24.44	18.43	19.73	18.83	20.08	20.45
	6H	22.89	24.10	23.31	24.46	24.85	18.89	20.09	19.30	20.46	20.85
	8H	23.05	24.19	23.47	24.58	24.98	19.05	20.20	19.48	20.58	20.99
	12H	23.14	24.24	23.57	24.62	25.05	19.17	20.26	19.60	20.64	21.07
4H	2H	20.11	21.41	20.51	21.76	22.14	17.04	18.34	17.44	18.69	19.06
	3H	22.08	23.16	22.49	23.56	23.97	18.72	19.80	19.13	20.20	20.60
	4H	22.83	23.80	23.26	24.22	24.66	19.42	20.39	19.85	20.81	21.25
	6H	23.42	24.27	23.88	24.71	25.17	20.00	20.85	20.46	21.29	21.75
	8H	23.63	24.42	24.09	24.87	25.33	20.21	21.01	20.68	21.45	21.92
	12H	23.78	24.49	24.26	24.96	25.44	20.37	21.08	20.86	21.56	22.03
8H	4H	22.89	23.69	23.36	24.13	24.60	19.78	20.58	20.25	21.02	21.49
	6H	23.55	24.21	24.05	24.70	25.18	20.48	21.14	20.98	21.63	22.11
	8H	23.81	24.40	24.32	24.90	25.39	20.77	21.36	21.28	21.87	22.36
	12H	24.01	24.54	24.52	25.03	25.59	21.01	21.53	21.52	22.02	22.59
12H	4H	22.89	23.59	23.37	24.07	24.54	19.83	20.54	20.31	21.02	21.49
	6H	23.55	24.14	24.06	24.65	25.13	20.56	21.15	21.07	21.66	22.14
	8H	23.84	24.36	24.35	24.85	25.42	20.90	21.42	21.41	21.91	22.48