

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: P1059102

Luminaire Tested: S123RDRP-S1165D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059102
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-S1165D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

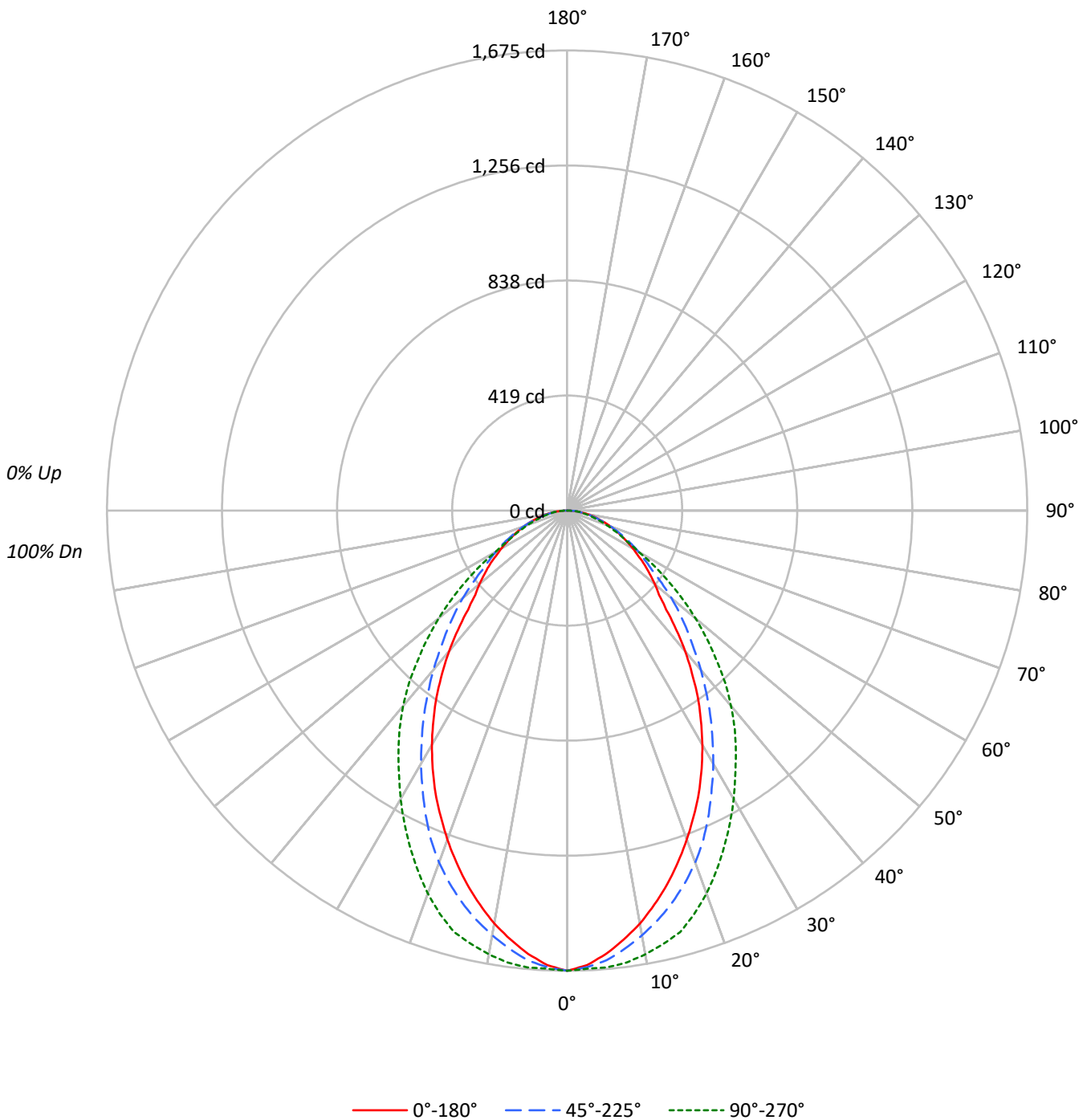
Lumens per Lamp: N/A
Luminaire Lumens: 2943.0 lumens
Efficiency: N/A
Efficacy: 70.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (A_{in}): 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°	19667	19667	19667
5°	19097	19369	19674
10°	18200	18715	19558
15°	17119	17960	19310
20°	15922	17038	18534
25°	14698	15799	17517
30°	13349	14423	16436
35°	11881	13017	15351
40°	10252	11599	14228
45°	8473	10268	12757
50°	7610	9057	11138
55°	7053	7730	9235
60°	6498	7041	7074
65°	6046	6368	5927
70°	5692	5788	5195
75°	5363	5168	4578
80°	5072	4679	4287
85°	4850	5241	4850

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12757 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.1	5.3
10°-20°	417.9	14.2
20°-30°	565.4	19.2
30°-40°	581.0	19.7
40°-50°	487.9	16.6
50°-60°	349.8	11.9
60°-70°	222.7	7.6
70°-80°	122.4	4.2
80°-90°	40.8	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°	1138.4	38.7
0°-40°	1719.4	58.4
0°-60°	2557.1	86.9
0°-90°	2943.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2943.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1675	1675	1675	1675	1675	
5°	1620	1649	1643	1655	1669	152
15°	1408	1447	1477	1541	1588	395
25°	1134	1178	1219	1286	1352	520
35°	829	874	908	989	1071	516
45°	510	555	618	708	768	403
55°	344	352	378	428	451	308
65°	218	231	229	216	213	217
75°	118	130	114	105	101	126
85°	36	38	39	40	36	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1674.9	1674.9	1674.9	1674.9	1674.9
2.5°	1656.1	1679.2	1663.3	1664.8	1669.1
5°	1620.1	1648.9	1643.2	1654.7	1669.1
7.5°	1575.4	1607.1	1608.6	1635.9	1659.0
10°	1526.4	1559.6	1569.6	1611.4	1640.3
12.5°	1468.7	1504.8	1526.4	1578.3	1615.8
15°	1408.2	1447.1	1477.4	1540.8	1588.4
17.5°	1341.9	1383.7	1422.6	1490.4	1539.4
20°	1274.2	1318.8	1363.5	1426.9	1483.2
22.5°	1203.5	1249.7	1295.8	1357.8	1419.7
25°	1134.4	1177.6	1219.4	1285.7	1352.0
27.5°	1059.4	1104.1	1140.1	1213.6	1282.8
30°	984.5	1029.1	1063.7	1140.1	1212.2
32.5°	906.6	952.7	984.5	1063.7	1138.7
35°	828.8	873.5	908.1	988.8	1070.9
37.5°	746.6	795.6	830.2	921.0	1001.7
40°	668.8	714.9	756.7	851.8	928.2
42.5°	588.1	635.6	683.2	781.2	851.8
45°	510.2	554.9	618.3	707.7	768.2
47.5°	454.0	482.9	556.4	631.3	689.0
50°	416.6	428.1	495.8	562.1	609.7
52.5°	379.1	387.7	433.9	494.4	530.4
55°	344.5	351.7	377.6	428.1	451.1
57.5°	307.0	314.2	335.8	364.7	377.6
60°	276.7	282.5	299.8	304.1	301.2
62.5°	246.5	255.1	263.8	253.7	249.4
65°	217.6	230.6	229.2	216.2	213.3
67.5°	191.7	204.7	197.5	184.5	180.2
70°	165.8	178.7	168.6	155.7	151.3
72.5°	141.3	155.7	139.8	128.3	125.4
75°	118.2	129.7	113.9	105.2	100.9
77.5°	96.6	105.2	90.8	83.6	80.7
80°	75.0	80.7	69.2	64.9	63.4
82.5°	54.8	57.7	50.4	53.3	51.9
85°	36.0	37.5	38.9	40.4	36.0
87.5°	17.3	24.5	24.5	23.1	18.7
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	17.53	19.00	17.90	19.31	19.63	18.60	20.07	18.97	20.38	20.70
	3H	19.23	20.54	19.61	20.87	21.23	19.69	21.00	20.07	21.33	21.69
	4H	19.89	21.11	20.29	21.46	21.84	20.09	21.32	20.49	21.67	22.05
	6H	20.39	21.52	20.80	21.89	22.28	20.40	21.53	20.81	21.90	22.29
	8H	20.56	21.64	20.99	22.03	22.43	20.54	21.61	20.96	22.00	22.41
	12H	20.69	21.72	21.12	22.10	22.53	20.66	21.69	21.09	22.07	22.50
4H	2H	18.14	19.36	18.54	19.71	20.09	19.01	20.24	19.41	20.59	20.96
	3H	20.06	21.08	20.47	21.48	21.88	20.33	21.34	20.74	21.75	22.15
	4H	20.88	21.79	21.31	22.21	22.65	20.84	21.76	21.28	22.18	22.62
	6H	21.52	22.32	21.98	22.76	23.22	21.28	22.07	21.74	22.52	22.98
	8H	21.75	22.49	22.21	22.93	23.40	21.47	22.21	21.93	22.66	23.13
	12H	21.92	22.58	22.40	23.06	23.53	21.65	22.31	22.13	22.79	23.27
8H	4H	21.11	21.86	21.58	22.30	22.77	21.09	21.84	21.56	22.28	22.75
	6H	21.90	22.52	22.40	23.01	23.49	21.64	22.25	22.14	22.75	23.22
	8H	22.21	22.77	22.73	23.28	23.77	21.92	22.47	22.43	22.98	23.47
	12H	22.48	22.97	22.99	23.46	24.03	22.21	22.70	22.72	23.19	23.76
12H	4H	21.12	21.79	21.61	22.27	22.74	21.12	21.78	21.60	22.26	22.73
	6H	21.93	22.49	22.45	23.00	23.49	21.69	22.24	22.21	22.76	23.24
	8H	22.31	22.80	22.82	23.29	23.86	22.03	22.52	22.54	23.01	23.58