

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: P1059156

Luminaire Tested: S123RDR-S1165D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059156
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: S123RDR-S1165D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

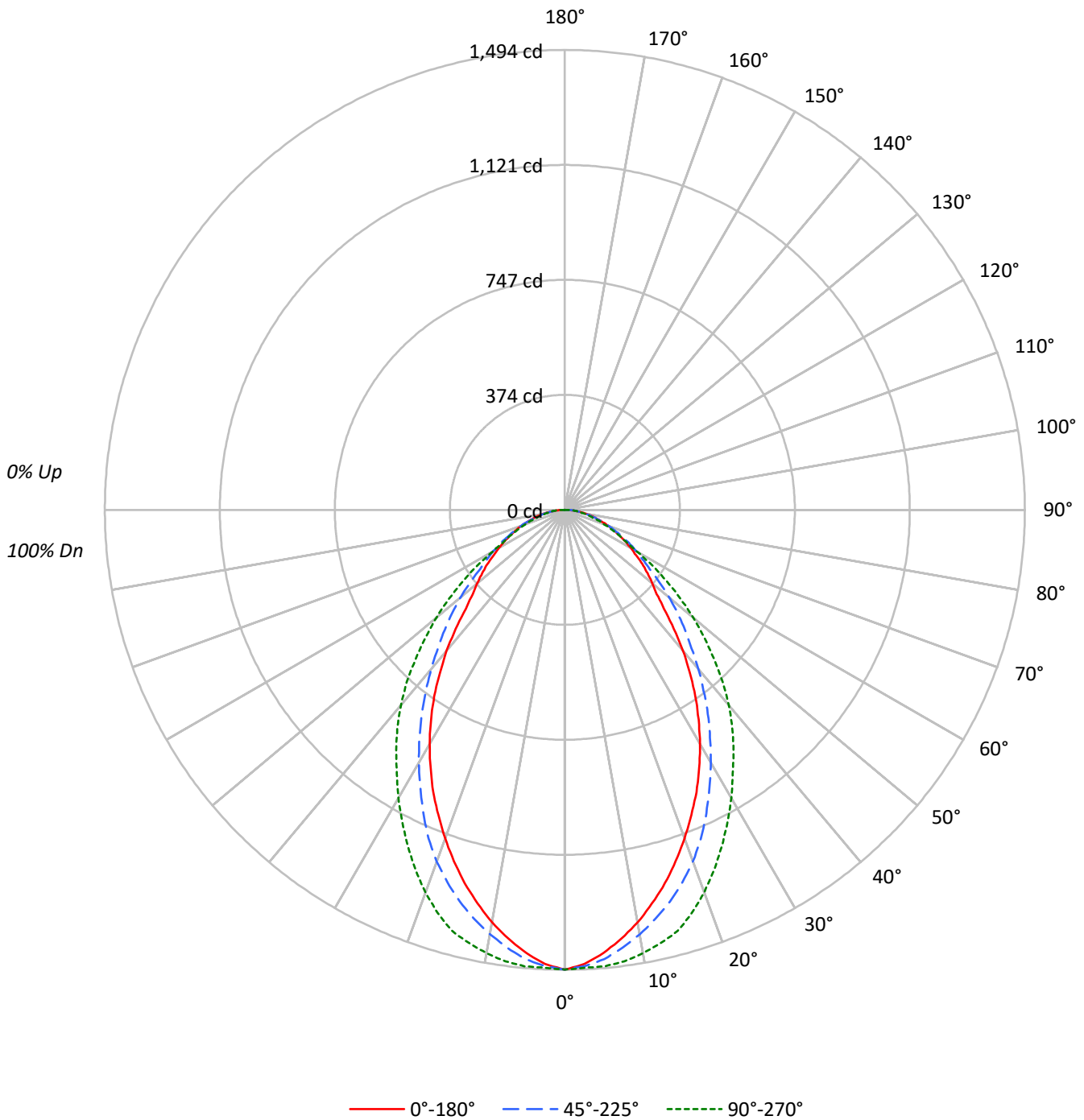
Lumens per Lamp: N/A
Luminaire Lumens: 2624.4 lumens
Efficiency: N/A
Efficacy: 62.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (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	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	108	104	101	97	100	97	94	96	94	92	92	91	89	87				87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17537	17537	17537
5°	17029	17271	17544
10°	16229	16689	17439
15°	15265	16015	17219
20°	14198	15194	16527
25°	13105	14087	15620
30°	11902	12861	14656
35°	10593	11607	13690
40°	9142	10344	12688
45°	7556	9157	11377
50°	6785	8076	9932
55°	6289	6893	8236
60°	5796	6278	6308
65°	5393	5679	5285
70°	5074	5164	4635
75°	4782	4605	4083
80°	4517	4172	3827
85°	4325	4675	4325

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11377 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.3	5.3
10°-20°	372.7	14.2
20°-30°	504.1	19.2
30°-40°	518.1	19.7
40°-50°	435.1	16.6
50°-60°	311.9	11.9
60°-70°	198.6	7.6
70°-80°	109.1	4.2
80°-90°	36.4	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°	1015.1	38.7
0°-40°	1533.2	58.4
0°-60°	2280.2	86.9
0°-90°	2624.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2624.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1494	1494	1494	1494	1494	
5°	1445	1470	1465	1476	1488	135
15°	1256	1290	1317	1374	1416	352
25°	1012	1050	1087	1146	1206	464
35°	739	779	810	882	955	460
45°	455	495	551	631	685	359
55°	307	314	337	382	402	274
65°	194	206	204	193	190	193
75°	105	116	102	94	90	112
85°	32	33	35	36	32	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1493.5	1493.5	1493.5	1493.5	1493.5
2.5°	1476.8	1497.3	1483.2	1484.5	1488.4
5°	1444.7	1470.4	1465.2	1475.5	1488.4
7.5°	1404.8	1433.1	1434.4	1458.8	1479.4
10°	1361.1	1390.7	1399.7	1436.9	1462.6
12.5°	1309.7	1341.8	1361.1	1407.4	1440.8
15°	1255.7	1290.4	1317.4	1374.0	1416.4
17.5°	1196.6	1233.9	1268.6	1329.0	1372.7
20°	1136.2	1176.0	1215.9	1272.4	1322.6
22.5°	1073.2	1114.3	1155.5	1210.7	1266.0
25°	1011.5	1050.1	1087.3	1146.5	1205.6
27.5°	944.7	984.5	1016.7	1082.2	1143.9
30°	877.8	917.7	948.5	1016.7	1080.9
32.5°	808.4	849.6	877.8	948.5	1015.4
35°	739.0	778.9	809.7	881.7	955.0
37.5°	665.8	709.5	740.3	821.3	893.3
40°	596.4	637.5	674.8	759.6	827.7
42.5°	524.4	566.8	609.2	696.6	759.6
45°	455.0	494.8	551.4	631.1	685.1
47.5°	404.9	430.6	496.1	563.0	614.4
50°	371.4	381.7	442.1	501.3	543.7
52.5°	338.0	345.7	386.9	440.9	473.0
55°	307.2	313.6	336.7	381.7	402.3
57.5°	273.8	280.2	299.5	325.2	336.7
60°	246.8	251.9	267.3	271.2	268.6
62.5°	219.8	227.5	235.2	226.2	222.4
65°	194.1	205.6	204.4	192.8	190.2
67.5°	170.9	182.5	176.1	164.5	160.7
70°	147.8	159.4	150.4	138.8	135.0
72.5°	126.0	138.8	124.7	114.4	111.8
75°	105.4	115.7	101.5	93.8	90.0
77.5°	86.1	93.8	81.0	74.5	72.0
80°	66.8	72.0	61.7	57.8	56.6
82.5°	48.8	51.4	45.0	47.6	46.3
85°	32.1	33.4	34.7	36.0	32.1
87.5°	15.4	21.8	21.8	20.6	16.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)