

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: P735888

Luminaire Tested: S122DRP-S675D950-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2024
Report Number: P735888
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2308-143-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/24/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-S675D950-X4F0-XX-UDD-W-W
Description: DEFINE 2 DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

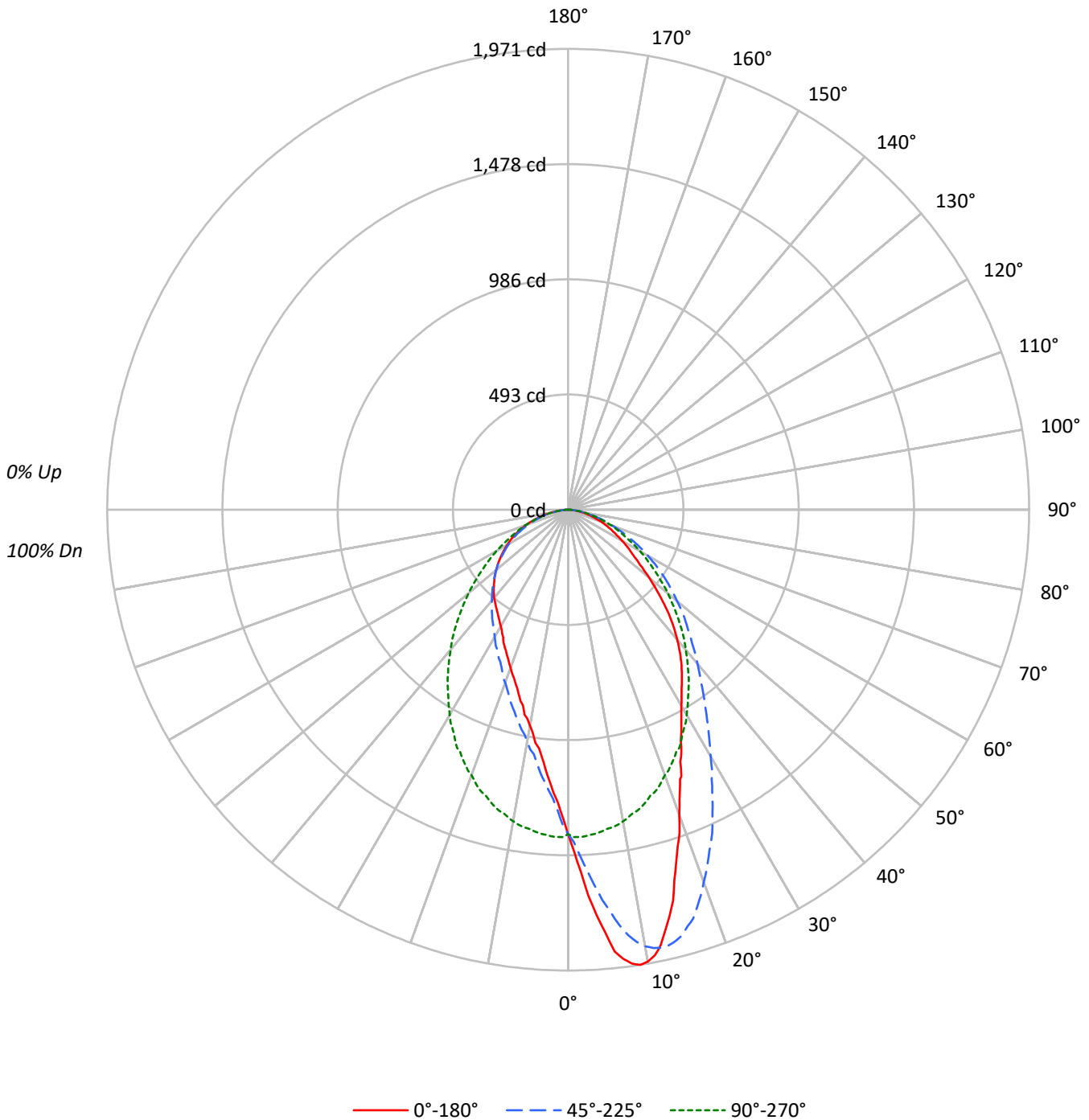
Lumens per Lamp: N/A
Luminaire Lumens: 2824.2 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 1.11 / 1.12
Luminous Opening: Rectangular (W 4' x L: 0.14' x H: 0')
CIE Type: Direct

Input Watts (W): 26
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	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	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74					74			
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64					64			
4	86	75	67	60	83	73	66	60	71	64	59	69	63	58	67	62	58	56					56			
5	79	67	59	53	77	66	58	53	64	57	52	62	56	52	61	55	51	49					49			
6	74	61	53	47	72	60	52	47	59	52	46	57	51	46	55	50	46	44					44			
7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41	39					39			
8	64	51	43	38	63	51	43	38	50	43	38	48	42	37	47	41	37	35					35			
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32					32			
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	26681	26681	26681	26681	26681
5°	34993	32342	26820	22494	21463
10°	38302	37017	26421	19662	18321
15°	34456	37492	25704	17750	16250
20°	28432	34677	24724	16098	14734
25°	24301	30937	23855	14890	13656
30°	21491	27018	22486	13954	12789
35°	19879	23929	21088	13298	12425
40°	18191	21591	19629	12734	12353
45°	16027	19708	18153	12344	12189
50°	13492	18172	16632	12009	12039
55°	11350	16719	15026	11605	11829
60°	10233	15108	13643	11260	11590
65°	9287	13276	12148	10715	11366
70°	8362	11476	10936	9919	10779
75°	7300	9706	9350	9001	9848
80°	6121	7604	7604	7815	8235
85°	4631	5469	5690	6109	5888

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 28942 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.6	4.8
10°-20°	374.9	13.3
20°-30°	491.7	17.4
30°-40°	519.7	18.4
40°-50°	482.5	17.1
50°-60°	386.2	13.7
60°-70°	264.1	9.4
70°-80°	136.3	4.8
80°-90°	32.4	1.1
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°	1003.2	35.5
0°-40°	1522.8	53.9
0°-60°	2391.5	84.7
0°-90°	2824.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2824.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1388	1388	1388	1388	1388	
5°	1814	1676	1390	1166	1112	179
15°	1732	1884	1292	892	817	475
25°	1146	1459	1125	702	644	528
35°	847	1020	899	567	530	529
45°	590	725	668	454	448	453
55°	339	499	448	346	353	310
65°	204	292	267	236	250	203
75°	98	131	126	121	133	105
85°	21	25	26	28	27	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1388.1	1388.1	1388.1	1388.1	1388.1	1388.1	1388.1	1388.1	1388.1
1°	1464.4	1456.8	1423.4	1425.3	1400.5	1372.8	1347.0	1330.8	1317.5
2°	1550.2	1535.0	1482.5	1456.8	1400.5	1341.3	1287.9	1273.6	1255.5
3°	1654.2	1618.0	1545.5	1484.4	1398.6	1312.7	1239.2	1213.5	1210.6
4°	1738.2	1705.8	1609.4	1513.0	1393.8	1285.0	1202.0	1174.4	1161.0
5°	1813.6	1792.6	1676.2	1549.3	1390.0	1258.3	1165.8	1127.6	1112.4
6°	1900.4	1857.4	1729.6	1585.5	1383.3	1232.6	1133.4	1087.6	1066.6
7°	1935.7	1909.0	1789.7	1609.4	1374.7	1203.0	1092.3	1042.7	1027.5
8°	1960.5	1950.0	1837.4	1648.5	1370.9	1175.3	1056.1	1025.5	1007.4
9°	1971.0	1962.4	1871.7	1664.7	1364.2	1161.0	1038.0	987.4	967.4
10°	1962.4	1966.2	1896.6	1689.5	1353.7	1131.4	1007.4	963.5	938.7
11°	1942.3	1951.9	1909.9	1718.2	1340.4	1107.6	979.8	934.9	911.1
12°	1904.2	1925.2	1915.6	1738.2	1328.0	1086.6	960.7	917.7	896.8
13°	1845.0	1891.8	1911.8	1746.8	1320.3	1062.8	936.8	887.2	860.5
14°	1791.6	1840.3	1901.3	1765.9	1307.0	1036.0	914.9	865.3	842.4
15°	1731.5	1787.8	1884.1	1771.6	1291.7	1014.1	892.0	837.6	816.6
16°	1647.6	1722.9	1852.7	1778.3	1273.6	989.3	871.0	819.5	791.8
17°	1577.9	1659.0	1828.8	1782.1	1264.0	970.2	852.9	791.8	773.7
18°	1514.0	1605.6	1785.9	1779.2	1248.8	948.3	826.2	771.8	754.6
19°	1463.4	1537.8	1743.0	1772.5	1227.8	927.3	806.1	757.5	737.4
20°	1390.0	1475.8	1695.3	1769.7	1208.7	908.2	787.0	737.4	720.3
21°	1328.9	1416.7	1651.4	1760.1	1195.4	890.1	772.7	718.4	703.1
22.5°	1248.8	1326.1	1577.9	1742.0	1165.8	859.6	741.3	700.2	679.2
23°	1239.2	1305.1	1558.8	1736.3	1157.2	852.9	730.8	689.7	672.6
24°	1179.1	1248.8	1514.0	1718.2	1135.3	831.9	713.6	677.3	657.3
25°	1145.8	1203.0	1458.7	1701.0	1124.8	812.8	702.1	661.1	643.9
26°	1099.0	1164.8	1409.1	1676.2	1101.9	795.6	684.0	646.8	630.6
27°	1064.7	1120.0	1357.5	1658.1	1075.2	777.5	669.7	632.5	612.5
28°	1031.3	1084.7	1307.9	1628.5	1056.1	757.5	659.2	620.1	601.0
29°	996.9	1043.7	1267.9	1605.6	1038.0	740.3	643.0	603.9	585.8
30°	968.3	1011.2	1217.3	1575.1	1013.1	720.3	628.7	592.4	576.2
32.5°	902.5	938.7	1114.3	1502.5	954.0	680.2	594.3	561.0	551.4
35°	847.2	871.0	1019.8	1421.5	898.7	637.3	566.7	534.2	529.5
37.5°	789.0	811.9	934.0	1336.6	840.5	598.2	535.2	514.2	510.4
40°	725.0	755.6	860.5	1252.6	782.3	560.0	507.5	491.3	492.3
42.5°	661.1	696.4	789.0	1154.3	727.9	523.7	480.8	469.4	471.3
45°	589.6	634.4	725.0	1064.7	667.8	489.4	454.1	448.4	448.4
47.5°	515.2	572.4	669.7	972.1	610.6	455.1	428.3	424.5	426.4
50°	451.2	502.8	607.7	882.4	556.2	423.6	401.6	400.7	402.6
52.5°	388.3	439.8	553.3	798.5	500.8	395.0	375.9	375.9	377.8
55°	338.7	378.7	498.9	710.7	448.4	361.6	346.3	349.2	353.0
57.5°	304.3	331.0	445.5	626.8	399.7	329.1	319.6	321.5	326.3
60°	266.2	287.2	393.0	549.5	354.9	297.6	292.9	296.7	301.5
62.5°	231.8	249.9	343.4	479.9	306.2	267.1	265.2	270.9	275.7
65°	204.2	216.6	291.9	409.3	267.1	236.6	235.6	244.2	249.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	175.5	185.1	247.1	342.5	228.0	206.1	206.1	215.6	220.4
70°	148.8	156.5	204.2	282.4	194.6	175.5	176.5	187.9	191.8
72.5°	121.2	127.8	166.0	227.1	157.4	146.9	149.8	159.3	163.1
75°	98.3	103.0	130.7	179.4	125.9	117.3	121.2	129.7	132.6
77.5°	75.4	79.2	96.4	131.7	96.4	91.6	95.4	103.0	103.0
80°	55.3	56.3	68.7	92.5	68.7	65.8	70.6	74.4	74.4
82.5°	36.3	38.2	44.8	59.1	45.8	44.8	46.7	49.6	49.6
85°	21.0	21.9	24.8	32.4	25.8	25.8	27.7	27.7	26.7
87.5°	8.6	9.5	10.5	12.4	11.4	12.4	12.4	10.5	11.4
90°	0.0	0.0	0.0	0.0	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	20.63	22.15	20.99	22.46	22.78	20.20	21.73	20.57	22.04	22.35
	3H	21.83	23.20	22.21	23.52	23.89	21.72	23.08	22.09	23.41	23.77
	4H	22.23	23.51	22.63	23.86	24.24	22.24	23.53	22.64	23.88	24.25
	6H	22.48	23.66	22.89	24.03	24.42	22.60	23.78	23.01	24.15	24.54
	8H	22.54	23.67	22.97	24.06	24.46	22.69	23.82	23.12	24.21	24.61
	12H	22.57	23.65	23.00	24.04	24.46	22.75	23.83	23.18	24.21	24.64
4H	2H	21.69	22.97	22.09	23.32	23.69	21.27	22.56	21.67	22.91	23.28
	3H	23.05	24.11	23.46	24.51	24.91	22.90	23.97	23.31	24.37	24.77
	4H	23.51	24.47	23.94	24.88	25.32	23.48	24.44	23.91	24.86	25.29
	6H	23.82	24.66	24.28	25.10	25.56	23.90	24.74	24.36	25.18	25.64
	8H	23.90	24.68	24.36	25.12	25.59	24.02	24.80	24.48	25.24	25.71
	12H	23.95	24.64	24.43	25.12	25.59	24.09	24.79	24.58	25.27	25.74
8H	4H	23.87	24.64	24.33	25.09	25.56	23.82	24.60	24.29	25.05	25.51
	6H	24.27	24.91	24.76	25.40	25.88	24.34	24.99	24.84	25.48	25.95
	8H	24.39	24.97	24.90	25.47	25.96	24.51	25.09	25.02	25.60	26.08
	12H	24.48	24.99	24.99	25.48	26.04	24.63	25.14	25.14	25.63	26.20
12H	4H	23.89	24.58	24.37	25.06	25.53	23.84	24.54	24.32	25.01	25.49
	6H	24.31	24.89	24.83	25.40	25.89	24.38	24.96	24.90	25.47	25.96
	8H	24.48	24.99	24.99	25.48	26.05	24.60	25.11	25.11	25.60	26.17