

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: P735884

Luminaire Tested: S122DRP-S675D927-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2024
Report Number: P735884
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-S675D927-X4F0-XX-UDD-W-W
Description: DEFINE 2 DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

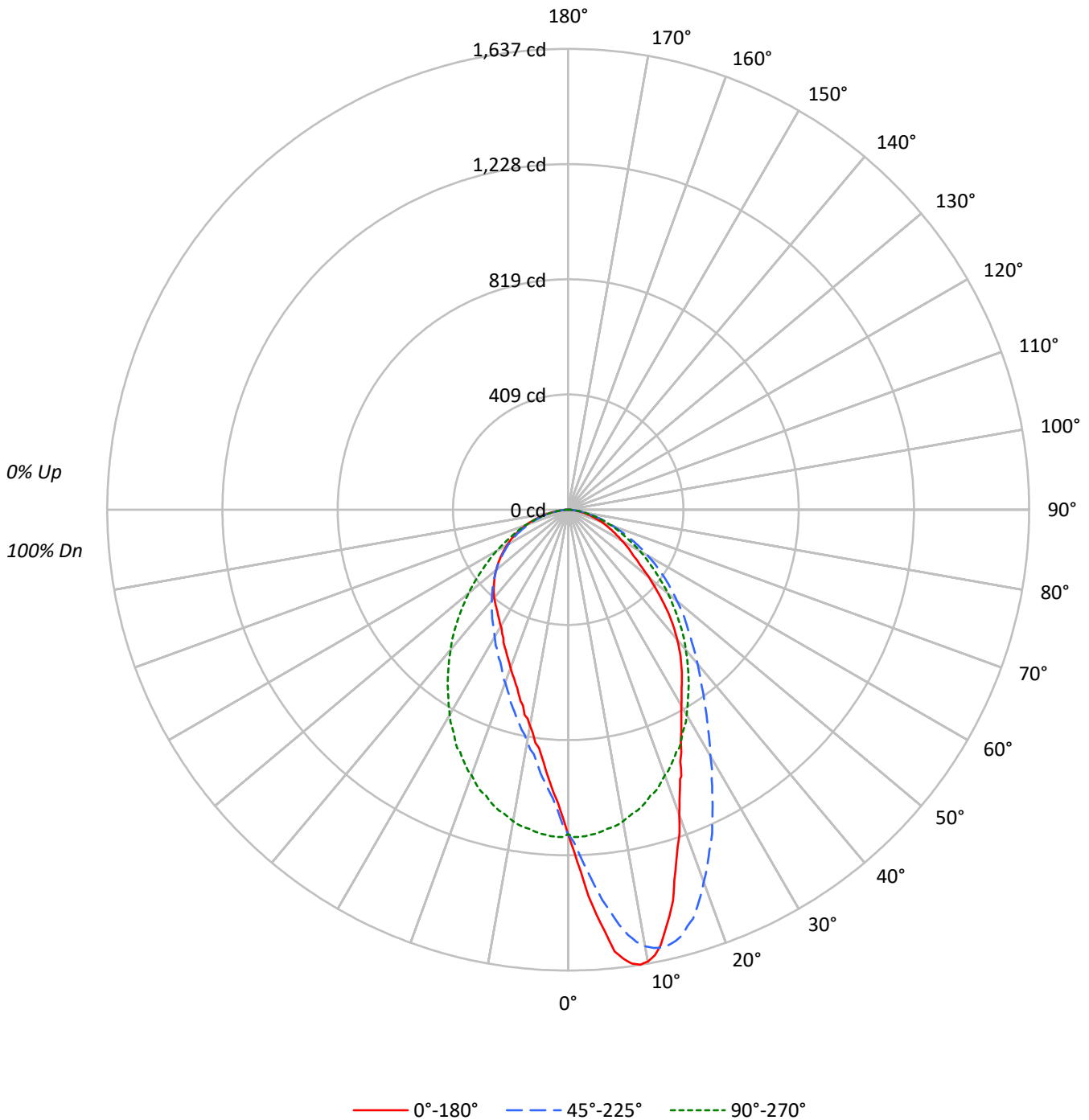
Lumens per Lamp: N/A
Luminaire Lumens: 2345.2 lumens
Efficiency: N/A
Efficacy: 90.2 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 1.11 / 1.12
Luminous Opening: Rectangular (W 4' x L: 0.14' x H: 0')
CIE Type: Direct

Input Watts (W): 26
Input Voltage (V): 120
Input Current (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	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°	22154	22154	22154	22154	22154
5°	29056	26856	22270	18677	17823
10°	31804	30739	21940	16327	15214
15°	28611	31134	21344	14739	13494
20°	23609	28794	20531	13367	12234
25°	20178	25688	19809	12364	11340
30°	17847	22435	18673	11586	10620
35°	16508	19870	17509	11043	10317
40°	15108	17928	16300	10574	10257
45°	13309	16367	15073	10251	10120
50°	11205	15089	13809	9973	9997
55°	9423	13884	12476	9638	9822
60°	8496	12548	11329	9349	9622
65°	7709	11025	10088	8901	9442
70°	6946	9526	9082	8239	8947
75°	6060	8058	7768	7471	8177
80°	5081	6309	6309	6486	6841
85°	3837	4543	4720	5072	4896

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 24032 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.4	4.8
10°-20°	311.3	13.3
20°-30°	408.3	17.4
30°-40°	431.5	18.4
40°-50°	400.6	17.1
50°-60°	320.7	13.7
60°-70°	219.3	9.4
70°-80°	113.2	4.8
80°-90°	26.9	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°	833.0	35.5
0°-40°	1264.5	53.9
0°-60°	1985.8	84.7
0°-90°	2345.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2345.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1153	1153	1153	1153	1153	
5°	1506	1392	1154	968	924	148
15°	1438	1565	1073	741	678	395
25°	951	1211	934	583	535	438
35°	704	847	746	471	440	439
45°	490	602	554	377	372	376
55°	281	414	372	288	293	258
65°	170	242	222	196	208	168
75°	82	108	105	101	110	87
85°	17	21	21	23	22	21
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°	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6
1°	1216.0	1209.7	1181.9	1183.5	1162.9	1139.9	1118.6	1105.1	1094.0
2°	1287.3	1274.6	1231.0	1209.7	1162.9	1113.8	1069.4	1057.6	1042.5
3°	1373.6	1343.5	1283.3	1232.6	1161.3	1090.0	1029.0	1007.7	1005.3
4°	1443.4	1416.4	1336.4	1256.4	1157.4	1067.1	998.1	975.2	964.1
5°	1505.9	1488.5	1391.9	1286.5	1154.2	1044.9	968.0	936.4	923.7
6°	1578.0	1542.4	1436.2	1316.6	1148.7	1023.5	941.1	903.1	885.7
7°	1607.3	1585.2	1486.1	1336.4	1141.5	998.9	907.0	865.9	853.2
8°	1627.9	1619.2	1525.7	1368.9	1138.4	976.0	876.9	851.6	836.5
9°	1636.6	1629.5	1554.3	1382.4	1132.8	964.1	861.9	819.9	803.3
10°	1629.5	1632.7	1574.9	1403.0	1124.1	939.5	836.5	800.1	779.5
11°	1612.9	1620.8	1585.9	1426.7	1113.0	919.7	813.6	776.3	756.5
12°	1581.2	1598.6	1590.7	1443.4	1102.7	902.3	797.7	762.1	744.6
13°	1532.1	1570.9	1587.5	1450.5	1096.4	882.5	777.9	736.7	714.5
14°	1487.7	1528.1	1578.8	1466.3	1085.3	860.3	759.7	718.5	699.5
15°	1437.8	1484.5	1564.6	1471.1	1072.6	842.1	740.7	695.5	678.1
16°	1368.1	1430.7	1538.4	1476.6	1057.6	821.5	723.3	680.5	657.5
17°	1310.3	1377.6	1518.6	1479.8	1049.6	805.6	708.2	657.5	642.5
18°	1257.2	1333.2	1483.0	1477.4	1037.0	787.4	686.0	640.9	626.6
19°	1215.2	1277.0	1447.3	1471.9	1019.5	770.0	669.4	629.0	612.4
20°	1154.2	1225.5	1407.7	1469.5	1003.7	754.2	653.5	612.4	598.1
21°	1103.5	1176.4	1371.3	1461.6	992.6	739.1	641.7	596.5	583.8
22.5°	1037.0	1101.1	1310.3	1446.5	968.0	713.8	615.5	581.5	564.0
23°	1029.0	1083.7	1294.4	1441.8	960.9	708.2	606.8	572.7	558.5
24°	979.1	1037.0	1257.2	1426.7	942.7	690.8	592.6	562.4	545.8
25°	951.4	998.9	1211.2	1412.5	934.0	674.9	583.0	549.0	534.7
26°	912.6	967.3	1170.1	1391.9	915.0	660.7	568.0	537.1	523.6
27°	884.1	930.0	1127.3	1376.8	892.8	645.6	556.1	525.2	508.6
28°	856.3	900.7	1086.1	1352.3	876.9	629.0	547.4	514.9	499.1
29°	827.8	866.6	1052.8	1333.2	861.9	614.7	533.9	501.5	486.4
30°	804.1	839.7	1010.8	1307.9	841.3	598.1	522.0	491.9	478.5
32.5°	749.4	779.5	925.3	1247.7	792.2	564.8	493.5	465.8	457.9
35°	703.5	723.3	846.8	1180.3	746.2	529.2	470.6	443.6	439.7
37.5°	655.1	674.1	775.5	1109.8	697.9	496.7	444.4	427.0	423.8
40°	602.1	627.4	714.5	1040.1	649.6	465.0	421.4	408.0	408.8
42.5°	549.0	578.3	655.1	958.5	604.4	434.9	399.3	389.8	391.3
45°	489.6	526.8	602.1	884.1	554.5	406.4	377.1	372.3	372.3
47.5°	427.8	475.3	556.1	807.2	507.0	377.9	355.7	352.5	354.1
50°	374.7	417.5	504.6	732.8	461.8	351.7	333.5	332.7	334.3
52.5°	322.4	365.2	459.5	663.1	415.9	328.0	312.1	312.1	313.7
55°	281.2	314.5	414.3	590.2	372.3	300.2	287.6	289.9	293.1
57.5°	252.7	274.9	369.9	520.5	331.9	273.3	265.4	267.0	270.9
60°	221.0	238.4	326.4	456.3	294.7	247.2	243.2	246.4	250.3
62.5°	192.5	207.6	285.2	398.5	254.3	221.8	220.2	225.0	228.9
65°	169.5	179.8	242.4	339.8	221.8	196.5	195.7	202.8	207.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	145.8	153.7	205.2	284.4	189.3	171.1	171.1	179.0	183.0
70°	123.6	129.9	169.5	234.5	161.6	145.8	146.6	156.1	159.2
72.5°	100.6	106.2	137.8	188.5	130.7	122.0	124.4	132.3	135.5
75°	81.6	85.6	108.5	148.9	104.6	97.4	100.6	107.7	110.1
77.5°	62.6	65.8	80.0	109.3	80.0	76.0	79.2	85.6	85.6
80°	45.9	46.7	57.0	76.8	57.0	54.7	58.6	61.8	61.8
82.5°	30.1	31.7	37.2	49.1	38.0	37.2	38.8	41.2	41.2
85°	17.4	18.2	20.6	26.9	21.4	21.4	23.0	23.0	22.2
87.5°	7.1	7.9	8.7	10.3	9.5	10.3	10.3	8.7	9.5
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	19.98	21.50	20.35	21.82	22.13	19.56	21.08	19.92	21.39	21.71
	3H	21.18	22.55	21.56	22.88	23.24	21.07	22.44	21.45	22.77	23.13
	4H	21.58	22.86	21.98	23.21	23.59	21.60	22.88	22.00	23.23	23.61
	6H	21.83	23.02	22.25	23.39	23.78	21.95	23.14	22.36	23.50	23.89
	8H	21.90	23.03	22.32	23.41	23.82	22.05	23.17	22.47	23.56	23.97
	12H	21.93	23.01	22.36	23.39	23.82	22.10	23.18	22.53	23.56	23.99
4H	2H	21.04	22.32	21.44	22.67	23.05	20.63	21.91	21.03	22.26	22.64
	3H	22.40	23.47	22.81	23.87	24.27	22.25	23.32	22.67	23.72	24.12
	4H	22.86	23.82	23.30	24.24	24.68	22.84	23.79	23.27	24.21	24.65
	6H	23.18	24.01	23.63	24.45	24.91	23.26	24.09	23.71	24.53	24.99
	8H	23.25	24.03	23.72	24.48	24.94	23.37	24.15	23.84	24.60	25.06
	12H	23.30	24.00	23.78	24.48	24.95	23.45	24.14	23.93	24.62	25.09
8H	4H	23.22	24.00	23.68	24.44	24.91	23.18	23.96	23.64	24.40	24.87
	6H	23.62	24.26	24.12	24.76	25.23	23.70	24.34	24.19	24.83	25.31
	8H	23.74	24.32	24.26	24.83	25.32	23.86	24.44	24.38	24.95	25.44
	12H	23.83	24.34	24.34	24.83	25.40	23.99	24.50	24.50	24.99	25.55
12H	4H	23.24	23.94	23.72	24.42	24.89	23.19	23.89	23.68	24.37	24.84
	6H	23.67	24.24	24.18	24.75	25.24	23.74	24.32	24.25	24.83	25.31
	8H	23.83	24.34	24.34	24.84	25.40	23.96	24.46	24.46	24.96	25.52