

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: P242278

Luminaire Tested: S122DRP-S1005D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242278  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DRP-S1005D935-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

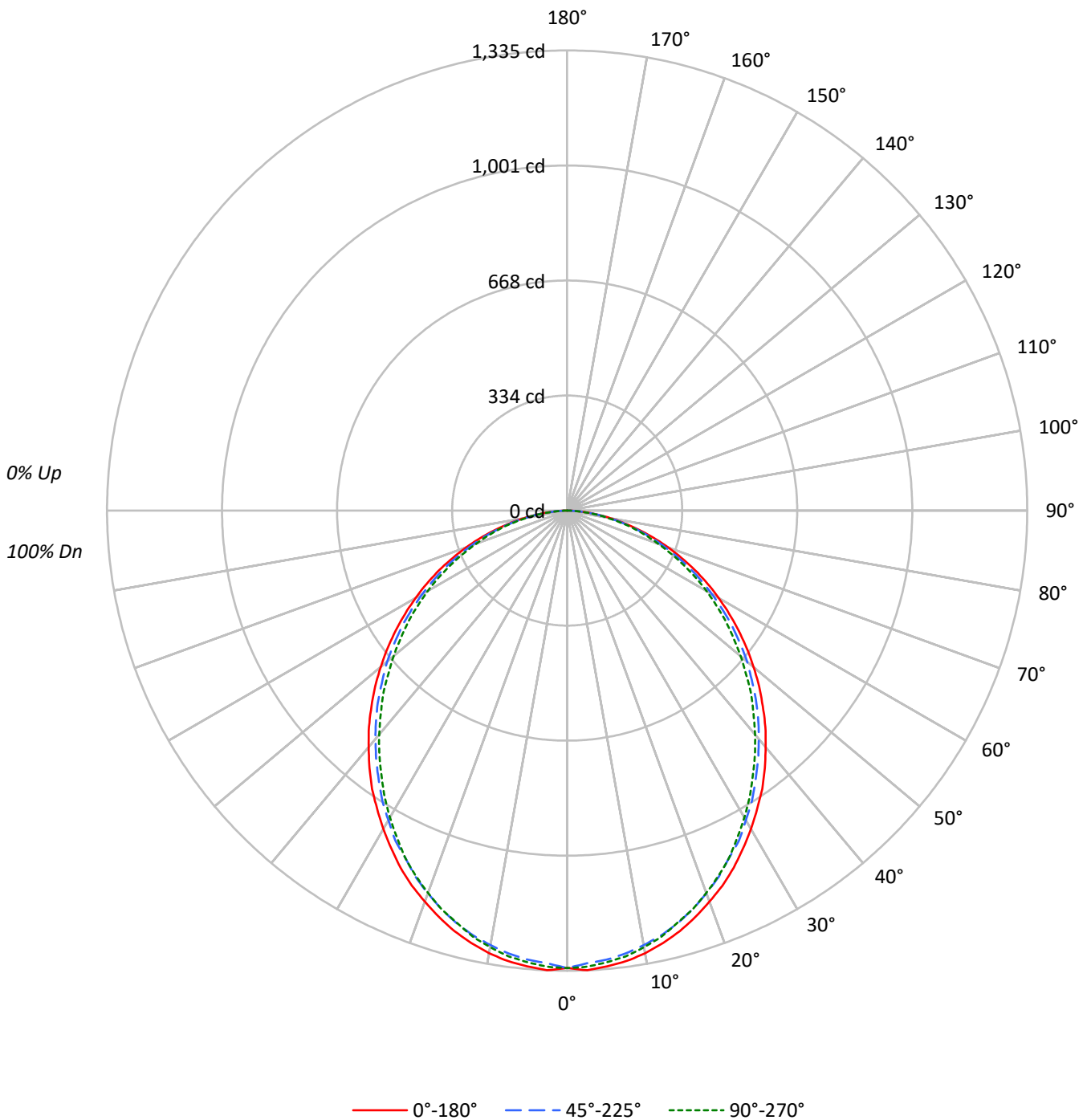
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3376.4 lumens  
Efficiency: N/A  
Efficacy: 82.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.1  
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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84				84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71				71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60				60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51				51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45				45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39				39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35				35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31				31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28				28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	26				26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	25278	25278	25278
5°	25375	25010	25155
10°	25223	24755	24879
15°	24912	24435	24409
20°	24470	23951	23927
25°	24031	23360	23360
30°	23464	22817	22621
35°	22937	22165	21839
40°	22274	21513	21100
45°	21620	20866	20349
50°	20912	20192	19475
55°	20171	19407	18687
60°	19349	18472	17791
65°	18461	17542	16735
70°	17342	16418	15633
75°	15779	15116	14741
80°	13997	13580	12878
85°	11430	10884	9769

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 21620 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.9	3.7
10°-20°	351.4	10.4
20°-30°	516.5	15.3
30°-40°	599.8	17.8
40°-50°	599.1	17.7
50°-60°	522.4	15.5
60°-70°	386.2	11.4
70°-80°	218.5	6.5
80°-90°	57.7	1.7
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°	992.8	29.4
0°-40°	1592.6	47.2
0°-60°	2714.1	80.4
0°-90°	3376.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3376.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1327	1327	1327	1327	1327	
5°	1327	1322	1308	1318	1316	126
15°	1263	1256	1239	1244	1238	356
25°	1143	1133	1112	1114	1112	526
35°	986	974	953	946	939	616
45°	803	794	775	760	755	619
55°	607	600	584	569	563	543
65°	410	402	389	378	371	405
75°	214	212	205	198	200	229
85°	52	51	50	46	45	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1327.1	1327.1	1327.1	1327.1	1327.1
2.5°	1334.8	1328.4	1314.4	1327.1	1324.6
5°	1327.1	1322.0	1308.0	1318.2	1315.6
7.5°	1318.2	1310.5	1296.5	1306.7	1304.1
10°	1304.1	1295.2	1279.9	1290.1	1286.3
12.5°	1285.0	1277.3	1262.0	1268.4	1265.9
15°	1263.3	1255.7	1239.1	1244.2	1237.8
17.5°	1236.5	1228.9	1212.3	1218.6	1212.3
20°	1207.2	1199.5	1181.6	1185.5	1180.4
22.5°	1177.8	1166.3	1149.7	1149.7	1147.2
25°	1143.4	1133.2	1111.5	1114.0	1111.5
27.5°	1105.1	1096.1	1079.6	1075.7	1069.3
30°	1066.8	1056.6	1037.4	1033.6	1028.5
32.5°	1026.0	1018.3	997.9	990.2	985.1
35°	986.4	973.6	953.2	945.6	939.2
37.5°	941.7	930.3	909.8	900.9	894.5
40°	895.8	885.6	865.2	853.7	848.6
42.5°	851.1	840.9	820.5	807.8	800.1
45°	802.6	793.7	774.6	760.5	755.4
47.5°	755.4	746.5	726.1	712.0	704.4
50°	705.7	699.3	681.4	663.6	657.2
52.5°	657.2	648.2	631.7	617.6	608.7
55°	607.4	599.8	584.4	569.1	562.7
57.5°	557.6	551.3	534.7	519.4	514.3
60°	507.9	502.8	484.9	470.9	467.0
62.5°	459.4	450.5	437.7	424.9	419.8
65°	409.6	402.0	389.2	377.7	371.3
67.5°	358.6	352.2	340.7	331.8	326.7
70°	311.4	306.3	294.8	285.8	280.7
72.5°	262.9	257.8	251.4	242.5	238.6
75°	214.4	211.8	205.4	197.8	200.3
77.5°	171.0	165.9	163.3	159.5	155.7
80°	127.6	126.3	123.8	120.0	117.4
82.5°	86.8	86.8	85.5	80.4	80.4
85°	52.3	51.0	49.8	45.9	44.7
87.5°	23.0	20.4	17.9	14.0	12.8
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	22.50	24.12	22.87	24.43	24.74	22.06	23.67	22.43	23.99	24.30
	3H	24.25	25.71	24.63	26.04	26.40	23.76	25.22	24.14	25.54	25.91
	4H	24.90	26.27	25.30	26.62	26.99	24.41	25.77	24.80	26.12	26.50
	6H	25.37	26.64	25.78	27.00	27.39	24.87	26.14	25.28	26.50	26.89
	8H	25.51	26.72	25.94	27.11	27.51	25.01	26.22	25.43	26.61	27.01
	12H	25.60	26.76	26.03	27.15	27.57	25.09	26.25	25.52	26.63	27.06
4H	2H	23.06	24.43	23.46	24.78	25.16	22.71	24.08	23.11	24.43	24.81
	3H	25.04	26.19	25.45	26.58	26.98	24.63	25.78	25.04	26.18	26.58
	4H	25.82	26.85	26.25	27.27	27.70	25.39	26.43	25.82	26.84	27.28
	6H	26.41	27.32	26.87	27.76	28.21	25.98	26.89	26.44	27.33	27.78
	8H	26.60	27.45	27.06	27.89	28.36	26.16	27.01	26.63	27.45	27.92
	12H	26.73	27.49	27.21	27.97	28.44	26.28	27.04	26.76	27.52	27.99
8H	4H	26.09	26.94	26.55	27.38	27.84	25.72	26.56	26.18	27.00	27.47
	6H	26.80	27.51	27.30	28.00	28.47	26.42	27.13	26.92	27.61	28.09
	8H	27.06	27.69	27.57	28.20	28.69	26.67	27.30	27.18	27.81	28.30
	12H	27.26	27.82	27.77	28.31	28.87	26.85	27.41	27.36	27.90	28.46
12H	4H	26.12	26.88	26.60	27.35	27.82	25.75	26.51	26.23	26.99	27.46
	6H	26.85	27.48	27.36	27.99	28.47	26.48	27.11	26.99	27.62	28.11
	8H	27.16	27.72	27.67	28.21	28.77	26.79	27.34	27.29	27.83	28.40