

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: P243138

Luminaire Tested: S122DRP-H1005D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243138
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-48)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-H1005D935-X4F0-XX-UDD-F-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

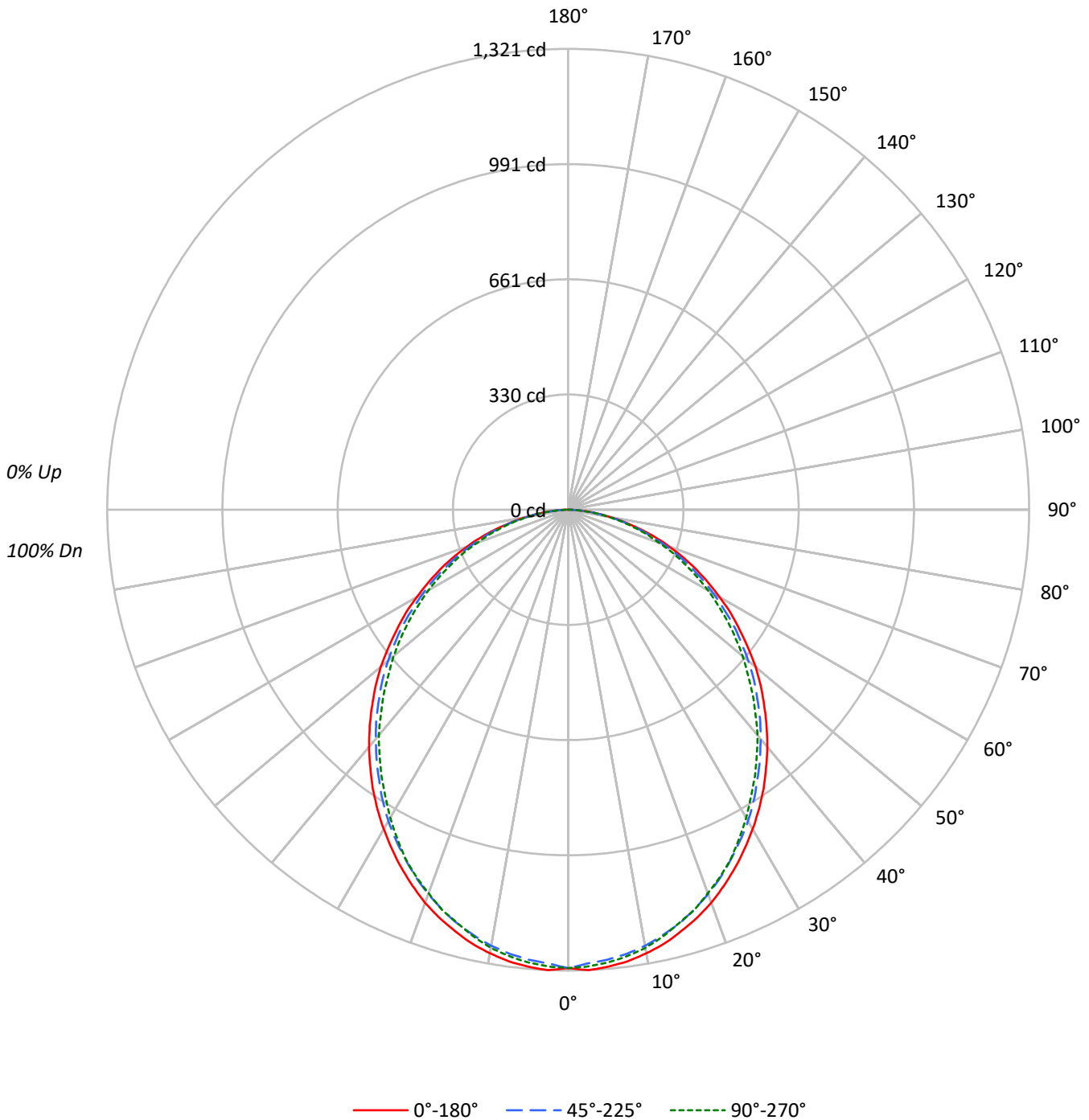
Lumens per Lamp: N/A
Luminaire Lumens: 3343.7 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 37.7
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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25029	25029	25029
5°	25149	24755	24916
10°	24970	24548	24666
15°	24671	24218	24192
20°	24304	23763	23714
25°	23799	23213	23188
30°	23255	22667	22428
35°	22697	21967	21683
40°	22073	21322	20989
45°	21402	20650	20128
50°	20779	19955	19344
55°	19909	19224	18501
60°	19055	18316	17623
65°	18231	17357	16595
70°	17131	16256	15443
75°	15595	14977	14263
80°	13547	13152	12625
85°	11649	10315	9529

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21402 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.7	3.7
10°-20°	348.3	10.4
20°-30°	512.1	15.3
30°-40°	594.5	17.8
40°-50°	593.8	17.8
50°-60°	517.1	15.5
60°-70°	382.5	11.4
70°-80°	215.6	6.4
80°-90°	56.2	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°	984.0	29.4
0°-40°	1578.6	47.2
0°-60°	2689.5	80.4
0°-90°	3343.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3343.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1314	1314	1314	1314	1314	
5°	1315	1309	1295	1306	1303	125
15°	1251	1245	1228	1233	1227	353
25°	1132	1123	1104	1103	1103	521
35°	976	965	945	936	932	610
45°	794	786	767	754	747	614
55°	600	595	579	563	557	537
65°	404	398	385	373	368	400
75°	212	211	204	196	194	225
85°	53	51	47	45	44	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1314.0	1314.0	1314.0	1314.0	1314.0
2.5°	1321.3	1315.3	1301.9	1312.8	1310.4
5°	1315.3	1309.2	1294.7	1305.6	1303.1
7.5°	1305.6	1299.5	1283.8	1294.7	1291.0
10°	1291.0	1283.8	1269.2	1276.5	1275.3
12.5°	1274.1	1266.8	1249.9	1255.9	1253.5
15°	1251.1	1245.0	1228.1	1232.9	1226.8
17.5°	1226.8	1217.2	1201.4	1206.3	1202.6
20°	1199.0	1189.3	1172.3	1174.8	1169.9
22.5°	1166.3	1156.6	1140.9	1140.9	1138.4
25°	1132.4	1122.7	1104.5	1103.3	1103.3
27.5°	1094.8	1086.4	1068.2	1064.6	1062.1
30°	1057.3	1050.0	1030.6	1023.4	1019.7
32.5°	1017.3	1007.6	989.5	981.0	974.9
35°	976.1	965.2	944.7	936.2	932.5
37.5°	931.3	920.4	902.3	895.0	887.7
40°	887.7	878.0	857.5	846.6	844.1
42.5°	841.7	832.0	813.9	801.7	794.5
45°	794.5	786.0	766.6	754.5	747.2
47.5°	748.5	738.8	721.8	707.3	697.6
50°	701.2	691.5	673.4	656.4	652.8
52.5°	649.1	643.1	624.9	609.2	604.3
55°	599.5	594.6	578.9	563.2	557.1
57.5°	552.3	546.2	528.0	515.9	508.7
60°	500.2	496.6	480.8	467.5	462.6
62.5°	451.7	446.9	433.6	420.3	414.2
65°	404.5	398.5	385.1	373.0	368.2
67.5°	356.1	350.0	339.1	329.4	324.6
70°	307.6	302.8	291.9	283.4	277.3
72.5°	260.4	255.5	245.9	237.4	236.2
75°	211.9	210.7	203.5	196.2	193.8
77.5°	167.1	165.9	161.1	157.4	155.0
80°	123.5	123.5	119.9	116.3	115.1
82.5°	84.8	86.0	82.4	79.9	79.9
85°	53.3	50.9	47.2	44.8	43.6
87.5°	21.8	18.2	17.0	13.3	12.1
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	22.47	24.08	22.84	24.40	24.71	22.04	23.65	22.41	23.97	24.28
	3H	24.23	25.68	24.60	26.01	26.37	23.74	25.20	24.12	25.52	25.89
	4H	24.87	26.24	25.27	26.59	26.96	24.37	25.74	24.77	26.09	26.46
	6H	25.33	26.60	25.74	26.96	27.35	24.83	26.10	25.24	26.46	26.85
	8H	25.47	26.68	25.89	27.07	27.47	24.97	26.18	25.40	26.57	26.97
	12H	25.56	26.72	25.99	27.10	27.53	25.05	26.21	25.48	26.59	27.02
4H	2H	23.03	24.40	23.43	24.75	25.12	22.69	24.06	23.09	24.41	24.78
	3H	25.01	26.15	25.42	26.55	26.95	24.61	25.75	25.02	26.15	26.55
	4H	25.79	26.82	26.22	27.24	27.67	25.35	26.39	25.79	26.80	27.24
	6H	26.37	27.28	26.83	27.72	28.17	25.94	26.84	26.39	27.28	27.74
	8H	26.56	27.40	27.02	27.85	28.31	26.12	26.97	26.58	27.41	27.87
	12H	26.69	27.45	27.17	27.93	28.40	26.24	27.00	26.72	27.47	27.94
8H	4H	26.06	26.90	26.52	27.35	27.81	25.68	26.52	26.14	26.96	27.43
	6H	26.76	27.46	27.25	27.95	28.42	26.37	27.07	26.87	27.56	28.04
	8H	27.01	27.64	27.52	28.15	28.64	26.62	27.25	27.13	27.76	28.24
	12H	27.22	27.77	27.72	28.27	28.83	26.80	27.36	27.31	27.85	28.41
12H	4H	26.08	26.84	26.56	27.32	27.79	25.71	26.47	26.19	26.95	27.41
	6H	26.80	27.43	27.31	27.94	28.43	26.43	27.06	26.94	27.57	28.05
	8H	27.11	27.67	27.62	28.16	28.72	26.73	27.29	27.24	27.78	28.34