

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: P243236

Luminaire Tested: S122RDRP-H1005D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-63)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H1005D930-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

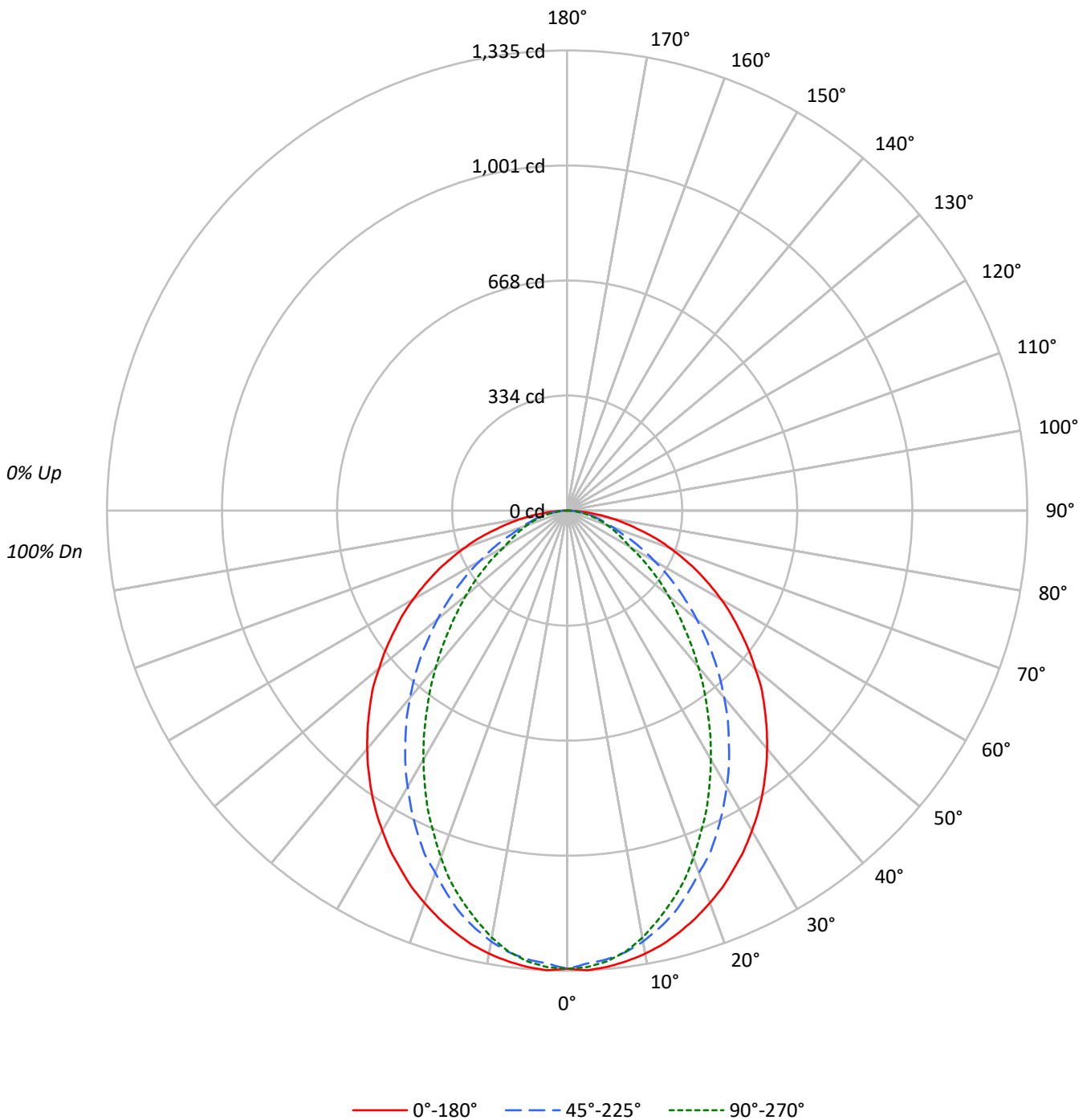
Lumens per Lamp: N/A
Luminaire Lumens: 2725.9 lumens
Efficiency: N/A
Efficacy: 72.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25318	25318	25318
5°	25415	24998	25107
10°	25243	24554	24334
15°	24943	23790	23135
20°	24547	22664	21711
25°	24079	21643	20100
30°	23585	20356	18337
35°	23039	19014	16507
40°	22441	17622	14715
45°	21811	16157	12943
50°	21105	14544	11349
55°	20374	12948	9787
60°	19703	11139	7996
65°	18813	9406	7392
70°	17693	7791	6900
75°	16117	7087	6329
80°	14468	6285	5660
85°	12020	5267	5005

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21811 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.5	4.6
10°-20°	341.2	12.5
20°-30°	478.6	17.6
30°-40°	521.3	19.1
40°-50°	479.2	17.6
50°-60°	376.0	13.8
60°-70°	245.3	9.0
70°-80°	126.9	4.7
80°-90°	32.8	1.2
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°	944.3	34.6
0°-40°	1465.6	53.8
0°-60°	2320.9	85.1
0°-90°	2725.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2725.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1329	1329	1329	1329	1329	
5°	1329	1322	1307	1316	1313	126
15°	1265	1250	1206	1182	1173	357
25°	1146	1106	1030	979	956	528
35°	991	926	818	742	710	620
45°	810	727	600	513	480	625
55°	614	522	390	316	295	550
65°	417	316	209	170	164	412
75°	219	136	96	88	86	234
85°	55	26	24	23	23	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1329.2	1329.2	1329.2	1329.2	1329.2
2.5°	1334.9	1329.2	1315.4	1328.0	1325.7
5°	1329.2	1322.3	1307.4	1316.5	1313.1
7.5°	1318.8	1312.0	1292.5	1297.0	1291.3
10°	1305.1	1295.9	1269.5	1264.9	1258.1
12.5°	1287.9	1275.3	1239.7	1225.9	1216.8
15°	1264.9	1250.0	1206.4	1182.4	1173.2
17.5°	1239.7	1217.9	1164.0	1136.5	1127.3
20°	1211.0	1185.8	1118.1	1089.5	1071.1
22.5°	1181.2	1149.1	1079.2	1034.4	1012.6
25°	1145.7	1105.5	1029.8	979.4	956.4
27.5°	1111.3	1064.2	978.2	919.7	894.5
30°	1072.3	1020.7	925.5	857.8	833.7
32.5°	1033.3	973.6	873.9	800.5	773.0
35°	990.8	925.5	817.7	742.0	709.9
37.5°	947.3	879.6	766.1	682.4	651.4
40°	902.5	826.9	708.7	621.6	591.8
42.5°	856.7	779.8	654.8	565.4	536.7
45°	809.7	727.1	599.8	512.6	480.5
47.5°	764.9	675.5	543.6	461.0	430.1
50°	712.2	623.9	490.8	407.1	383.0
52.5°	664.0	572.3	439.2	359.0	338.3
55°	613.5	521.8	389.9	316.5	294.7
57.5°	566.5	469.0	340.6	274.1	253.4
60°	517.2	418.6	292.4	231.7	209.9
62.5°	465.6	367.0	250.0	192.7	185.8
65°	417.4	316.5	208.7	169.7	164.0
67.5°	365.8	269.5	166.3	149.1	143.4
70°	317.7	223.6	139.9	127.3	123.9
72.5°	270.6	180.0	118.1	107.8	104.4
75°	219.0	136.5	96.3	88.3	86.0
77.5°	174.3	96.3	76.8	71.1	68.8
80°	131.9	70.0	57.3	53.9	51.6
82.5°	90.6	47.0	40.1	37.8	36.7
85°	55.0	26.4	24.1	22.9	22.9
87.5°	21.8	10.3	10.3	9.2	9.2
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	24.00	22.84	24.31	24.62	18.36	19.88	18.72	20.20	20.51
	3H	24.24	25.61	24.62	25.93	26.30	19.65	21.02	20.03	21.35	21.71
	4H	24.90	26.18	25.30	26.53	26.91	20.16	21.44	20.56	21.79	22.17
	6H	25.39	26.57	25.80	26.94	27.33	20.54	21.73	20.96	22.09	22.49
	8H	25.56	26.68	25.98	27.07	27.47	20.67	21.79	21.09	22.18	22.58
	12H	25.67	26.74	26.10	27.13	27.56	20.75	21.83	21.18	22.21	22.64
4H	2H	22.57	23.86	22.97	24.20	24.58	19.07	20.35	19.47	20.70	21.07
	3H	24.51	25.58	24.92	25.98	26.38	20.54	21.60	20.95	22.00	22.40
	4H	25.26	26.21	25.69	26.63	27.07	21.14	22.10	21.58	22.52	22.96
	6H	25.85	26.68	26.31	27.12	27.58	21.64	22.47	22.09	22.91	23.37
	8H	26.06	26.84	26.53	27.28	27.75	21.80	22.58	22.26	23.02	23.49
	12H	26.22	26.92	26.71	27.40	27.87	21.91	22.61	22.40	23.09	23.56
8H	4H	25.28	26.06	25.75	26.50	26.97	21.51	22.28	21.97	22.73	23.19
	6H	25.92	26.56	26.42	27.05	27.53	22.10	22.74	22.60	23.23	23.71
	8H	26.17	26.75	26.68	27.26	27.74	22.32	22.90	22.83	23.41	23.90
	12H	26.38	26.89	26.89	27.39	27.95	22.50	23.01	23.01	23.50	24.07
12H	4H	25.27	25.96	25.75	26.44	26.91	21.55	22.24	22.03	22.72	23.19
	6H	25.90	26.48	26.41	26.99	27.48	22.16	22.74	22.68	23.25	23.74
	8H	26.18	26.69	26.69	27.19	27.75	22.44	22.95	22.95	23.44	24.01