

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: P242254

Luminaire Tested: S122DRP-S1005D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242254
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-S1005D927-X4F0-XX-UDD-F-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

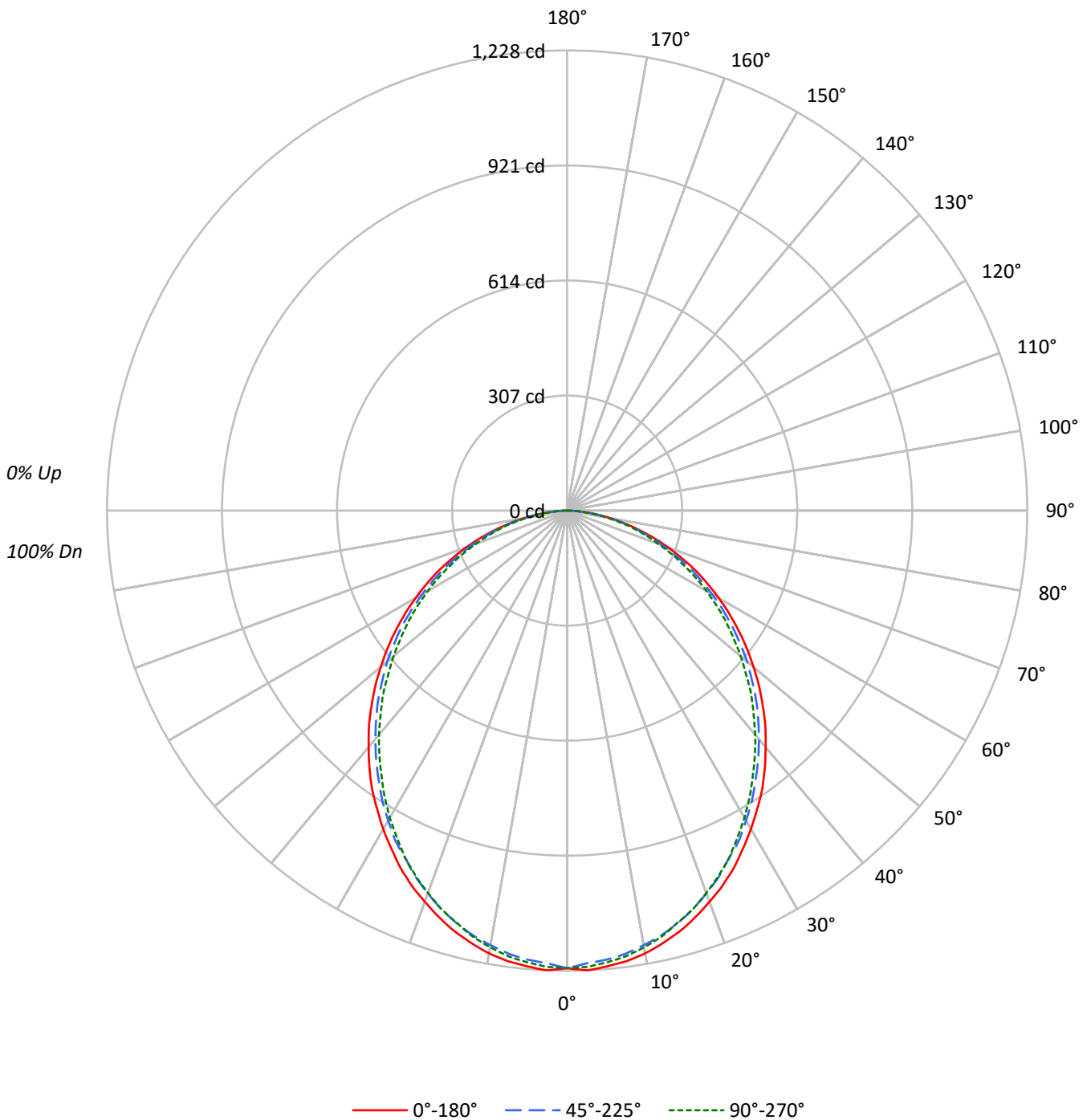
Lumens per Lamp: N/A
Luminaire Lumens: 3106.5 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (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	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°	23257	23257	23257
5°	23346	23010	23145
10°	23208	22777	22891
15°	22920	22480	22459
20°	22514	22038	22013
25°	22110	21492	21492
30°	21588	20994	20813
35°	21104	20393	20093
40°	20494	19793	19415
45°	19893	19198	18724
50°	19241	18580	17916
55°	18560	17856	17195
60°	17802	16994	16370
65°	16987	16140	15401
70°	15956	15104	14385
75°	14513	13909	13564
80°	12878	12494	11847
85°	10512	10009	8982

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 19893 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.9	3.7
10°-20°	323.3	10.4
20°-30°	475.2	15.3
30°-40°	551.9	17.8
40°-50°	551.2	17.7
50°-60°	480.6	15.5
60°-70°	355.3	11.4
70°-80°	201.0	6.5
80°-90°	53.0	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°	913.4	29.4
0°-40°	1465.3	47.2
0°-60°	2497.2	80.4
0°-90°	3106.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3106.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1221	1221	1221	1221	1221	
5°	1221	1216	1203	1213	1210	116
15°	1162	1155	1140	1145	1139	327
25°	1052	1043	1023	1025	1023	484
35°	908	896	877	870	864	567
45°	738	730	713	700	695	570
55°	559	552	538	524	518	500
65°	377	370	358	348	342	373
75°	197	195	189	182	184	210
85°	48	47	46	42	41	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1221.0	1221.0	1221.0	1221.0	1221.0
2.5°	1228.1	1222.2	1209.3	1221.0	1218.7
5°	1221.0	1216.3	1203.4	1212.8	1210.5
7.5°	1212.8	1205.8	1192.9	1202.3	1199.9
10°	1199.9	1191.7	1177.6	1187.0	1183.5
12.5°	1182.3	1175.3	1161.2	1167.0	1164.7
15°	1162.3	1155.3	1140.0	1144.7	1138.9
17.5°	1137.7	1130.6	1115.4	1121.2	1115.4
20°	1110.7	1103.6	1087.2	1090.7	1086.0
22.5°	1083.7	1073.1	1057.8	1057.8	1055.5
25°	1052.0	1042.6	1022.6	1025.0	1022.6
27.5°	1016.8	1008.5	993.3	989.7	983.9
30°	981.5	972.1	954.5	951.0	946.3
32.5°	944.0	936.9	918.1	911.1	906.4
35°	907.6	895.8	877.0	870.0	864.1
37.5°	866.5	855.9	837.1	828.9	823.0
40°	824.2	814.8	796.0	785.5	780.8
42.5°	783.1	773.7	754.9	743.2	736.1
45°	738.5	730.3	712.7	699.8	695.1
47.5°	695.1	686.8	668.0	655.1	648.1
50°	649.3	643.4	627.0	610.5	604.6
52.5°	604.6	596.4	581.2	568.3	560.0
55°	558.9	551.8	537.7	523.6	517.8
57.5°	513.1	507.2	491.9	477.8	473.2
60°	467.3	462.6	446.1	433.2	429.7
62.5°	422.7	414.4	402.7	391.0	386.3
65°	376.9	369.8	358.1	347.5	341.7
67.5°	329.9	324.0	313.5	305.3	300.6
70°	286.5	281.8	271.2	263.0	258.3
72.5°	241.9	237.2	231.3	223.1	219.6
75°	197.2	194.9	189.0	182.0	184.3
77.5°	157.3	152.6	150.3	146.8	143.2
80°	117.4	116.2	113.9	110.4	108.0
82.5°	79.8	79.8	78.7	74.0	74.0
85°	48.1	47.0	45.8	42.3	41.1
87.5°	21.1	18.8	16.4	12.9	11.7
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	22.21	23.83	22.58	24.14	24.45	21.77	23.38	22.14	23.70	24.01
	3H	23.96	25.42	24.34	25.75	26.11	23.47	24.93	23.85	25.26	25.62
	4H	24.61	25.98	25.01	26.33	26.70	24.12	25.49	24.51	25.83	26.21
	6H	25.08	26.35	25.49	26.71	27.10	24.58	25.85	24.99	26.21	26.60
	8H	25.22	26.43	25.65	26.82	27.22	24.72	25.93	25.15	26.32	26.72
	12H	25.31	26.47	25.74	26.85	27.28	24.80	25.96	25.23	26.34	26.77
4H	2H	22.78	24.14	23.17	24.49	24.87	22.42	23.79	22.82	24.14	24.52
	3H	24.75	25.90	25.16	26.29	26.69	24.34	25.49	24.75	25.89	26.29
	4H	25.53	26.56	25.96	26.98	27.41	25.10	26.14	25.53	26.55	26.99
	6H	26.12	27.03	26.58	27.47	27.92	25.69	26.60	26.15	27.04	27.49
	8H	26.31	27.16	26.77	27.60	28.07	25.88	26.72	26.34	27.16	27.63
	12H	26.44	27.20	26.92	27.68	28.15	25.99	26.75	26.47	27.23	27.70
8H	4H	25.80	26.65	26.26	27.09	27.55	25.43	26.27	25.89	26.72	27.18
	6H	26.51	27.22	27.01	27.71	28.18	26.13	26.84	26.63	27.32	27.80
	8H	26.77	27.40	27.28	27.91	28.40	26.38	27.01	26.89	27.52	28.01
	12H	26.97	27.53	27.48	28.02	28.58	26.56	27.12	27.07	27.61	28.17
12H	4H	25.83	26.59	26.31	27.06	27.53	25.46	26.22	25.94	26.70	27.17
	6H	26.56	27.19	27.07	27.70	28.18	26.19	26.82	26.70	27.33	27.82
	8H	26.87	27.43	27.38	27.92	28.48	26.50	27.05	27.00	27.54	28.11