

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: P242273

Luminaire Tested: S122DRP-S1005D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242273
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-S1005D930-X4F0-XX-UDD-F-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

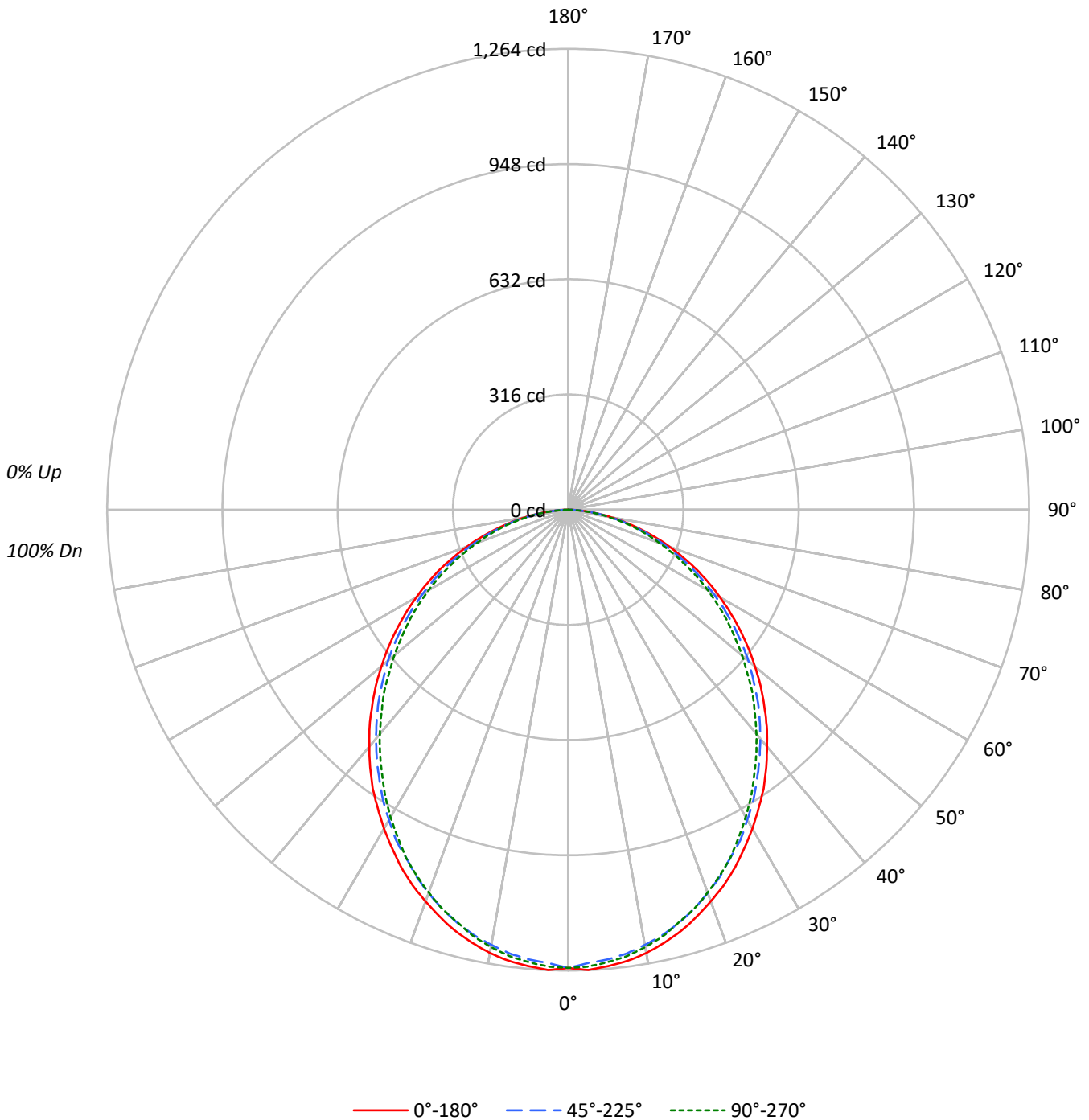
Lumens per Lamp: N/A
Luminaire Lumens: 3197.2 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

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	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	27	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23937	23937	23937
5°	24029	23681	23820
10°	23885	23442	23558
15°	23591	23137	23113
20°	23171	22680	22656
25°	22755	22120	22120
30°	22219	21607	21420
35°	21718	20988	20679
40°	21093	20372	19979
45°	20473	19759	19268
50°	19801	19122	18441
55°	19102	18378	17697
60°	18320	17493	16850
65°	17483	16609	15847
70°	16418	15544	14803
75°	14940	14314	13961
80°	13251	12856	12198
85°	10818	10294	9245

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 20473 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.3	3.7
10°-20°	332.8	10.4
20°-30°	489.0	15.3
30°-40°	568.0	17.8
40°-50°	567.3	17.7
50°-60°	494.7	15.5
60°-70°	365.6	11.4
70°-80°	206.9	6.5
80°-90°	54.6	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°	940.1	29.4
0°-40°	1508.1	47.2
0°-60°	2570.0	80.4
0°-90°	3197.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3197.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1257	1257	1257	1257	1257	
5°	1257	1252	1238	1248	1246	119
15°	1196	1189	1173	1178	1172	337
25°	1083	1073	1052	1055	1052	498
35°	934	922	903	895	889	583
45°	760	752	734	720	715	587
55°	575	568	553	539	533	514
65°	388	381	368	358	352	384
75°	203	201	194	187	190	217
85°	50	48	47	44	42	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1256.7	1256.7	1256.7	1256.7	1256.7
2.5°	1263.9	1257.9	1244.6	1256.7	1254.3
5°	1256.7	1251.8	1238.5	1248.2	1245.8
7.5°	1248.2	1241.0	1227.7	1237.3	1234.9
10°	1234.9	1226.5	1212.0	1221.6	1218.0
12.5°	1216.8	1209.5	1195.0	1201.1	1198.7
15°	1196.3	1189.0	1173.3	1178.1	1172.1
17.5°	1170.9	1163.6	1147.9	1154.0	1147.9
20°	1143.1	1135.8	1118.9	1122.5	1117.7
22.5°	1115.3	1104.4	1088.7	1088.7	1086.3
25°	1082.7	1073.0	1052.5	1054.9	1052.5
27.5°	1046.4	1038.0	1022.3	1018.6	1012.6
30°	1010.2	1000.5	982.4	978.8	973.9
32.5°	971.5	964.3	944.9	937.7	932.8
35°	934.0	922.0	902.6	895.4	889.3
37.5°	891.8	880.9	861.5	853.1	847.0
40°	848.3	838.6	819.3	808.4	803.5
42.5°	806.0	796.3	777.0	764.9	757.6
45°	760.0	751.6	733.5	720.2	715.3
47.5°	715.3	706.9	687.5	674.3	667.0
50°	668.2	662.2	645.3	628.3	622.3
52.5°	622.3	613.8	598.1	584.8	576.4
55°	575.2	567.9	553.4	538.9	532.9
57.5°	528.0	522.0	506.3	491.8	487.0
60°	480.9	476.1	459.2	445.9	442.3
62.5°	435.0	426.5	414.5	402.4	397.5
65°	387.9	380.6	368.5	357.7	351.6
67.5°	339.5	333.5	322.6	314.2	309.3
70°	294.8	290.0	279.1	270.7	265.8
72.5°	248.9	244.1	238.0	229.6	226.0
75°	203.0	200.6	194.5	187.3	189.7
77.5°	161.9	157.1	154.7	151.0	147.4
80°	120.8	119.6	117.2	113.6	111.2
82.5°	82.2	82.2	81.0	76.1	76.1
85°	49.5	48.3	47.1	43.5	42.3
87.5°	21.8	19.3	16.9	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	22.31	23.93	22.68	24.24	24.55	21.87	23.48	22.24	23.80	24.11
	3H	24.06	25.52	24.44	25.85	26.21	23.57	25.03	23.95	25.36	25.72
	4H	24.71	26.08	25.11	26.43	26.80	24.22	25.59	24.61	25.93	26.31
	6H	25.18	26.45	25.59	26.81	27.20	24.68	25.95	25.09	26.31	26.70
	8H	25.32	26.53	25.75	26.92	27.32	24.82	26.03	25.25	26.42	26.82
	12H	25.41	26.57	25.84	26.96	27.38	24.90	26.06	25.33	26.44	26.87
4H	2H	22.87	24.24	23.27	24.59	24.97	22.52	23.89	22.92	24.24	24.62
	3H	24.85	26.00	25.26	26.39	26.79	24.44	25.59	24.85	25.99	26.39
	4H	25.63	26.66	26.06	27.08	27.51	25.20	26.24	25.63	26.65	27.09
	6H	26.22	27.13	26.68	27.57	28.02	25.79	26.70	26.25	27.14	27.59
	8H	26.41	27.26	26.87	27.70	28.17	25.97	26.82	26.44	27.26	27.73
	12H	26.54	27.30	27.02	27.78	28.25	26.09	26.85	26.57	27.33	27.80
8H	4H	25.90	26.75	26.36	27.19	27.65	25.53	26.37	25.99	26.82	27.28
	6H	26.61	27.32	27.11	27.81	28.28	26.23	26.94	26.73	27.42	27.90
	8H	26.87	27.50	27.38	28.01	28.50	26.48	27.11	26.99	27.62	28.11
	12H	27.07	27.63	27.58	28.12	28.68	26.66	27.22	27.17	27.71	28.27
12H	4H	25.93	26.69	26.41	27.16	27.63	25.56	26.32	26.04	26.80	27.27
	6H	26.66	27.29	27.17	27.80	28.28	26.29	26.92	26.80	27.43	27.92
	8H	26.97	27.53	27.48	28.02	28.58	26.60	27.15	27.10	27.64	28.21