

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P243044

Luminaire Tested: **S121RDR-H880D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243044
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-62)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-H880D927-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2093.2 lumens
Efficiency: N/A
Efficacy: 66.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

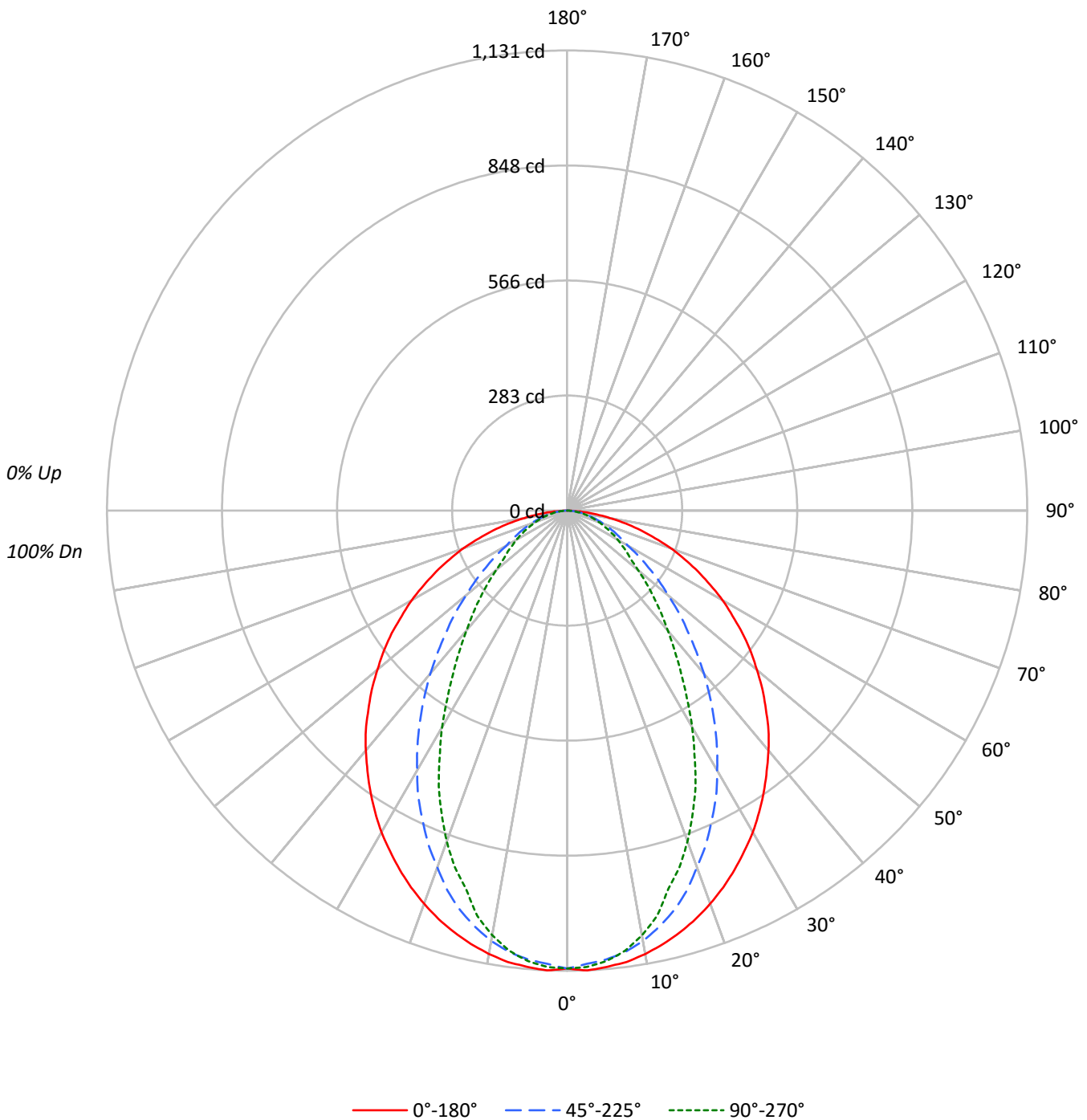
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33351	33351	33351
5°	33479	32937	33053
10°	33291	32316	31883
15°	32917	31190	29494
20°	32424	29416	27281
25°	31839	27475	24418
30°	31233	25226	21017
35°	30500	22806	17666
40°	29775	20217	14868
45°	28938	17545	12592
50°	28054	14949	10464
55°	27198	12615	9314
60°	26169	10228	8533
65°	24875	9163	7824
70°	23555	8265	7190
75°	21511	7430	6548
80°	18394	6518	5853
85°	14278	5507	4861



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.4	5.0
10°-20°	286.4	13.7
20°-30°	390.8	18.7
30°-40°	405.1	19.4
40°-50°	353.5	16.9
50°-60°	266.0	12.7
60°-70°	174.4	8.3
70°-80°	88.9	4.2
80°-90°	22.6	1.1
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°	782.6	37.4
0°-40°	1187.7	56.7
0°-60°	1807.3	86.3
0°-90°	2093.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2093.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1126	1126	1126	1126	1126	
5°	1126	1120	1107	1114	1111	107
15°	1073	1058	1017	988	962	302
25°	974	934	840	770	747	449
35°	843	771	630	525	488	527
45°	691	590	419	325	300	533
55°	526	401	244	185	180	470
65°	355	221	131	115	112	352
75°	188	86	65	59	57	198
85°	42	17	16	14	14	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1125.6	1125.6	1125.6	1125.6	1125.6
2.5°	1131.3	1126.5	1115.1	1124.6	1122.7
5°	1125.6	1119.8	1107.4	1114.1	1111.3
7.5°	1118.9	1111.3	1094.1	1096.9	1091.2
10°	1106.5	1096.9	1074.1	1068.3	1059.7
12.5°	1091.2	1080.7	1047.3	1034.0	1020.6
15°	1073.1	1057.8	1016.8	988.2	961.5
17.5°	1052.1	1033.0	978.7	938.6	918.6
20°	1028.3	1003.5	932.9	886.1	865.2
22.5°	1002.5	971.0	890.0	830.8	806.0
25°	973.9	933.8	840.4	769.8	746.9
27.5°	943.4	897.6	792.7	711.6	678.2
30°	912.9	855.6	737.3	646.7	614.3
32.5°	878.5	813.6	684.9	584.7	548.5
35°	843.2	770.7	630.5	524.6	488.4
37.5°	806.0	727.8	576.1	469.3	434.0
40°	769.8	681.1	522.7	415.9	384.4
42.5°	732.6	634.3	469.3	369.1	342.4
45°	690.6	590.4	418.7	325.3	300.5
47.5°	651.5	542.8	373.0	286.2	263.3
50°	608.6	496.0	324.3	249.9	227.0
52.5°	568.5	448.3	284.3	211.8	197.5
55°	526.5	400.6	244.2	185.1	180.3
57.5°	481.7	353.9	208.9	166.0	160.2
60°	441.6	309.1	172.6	148.8	144.0
62.5°	396.8	264.2	149.8	132.6	127.8
65°	354.8	221.3	130.7	115.4	111.6
67.5°	312.9	182.2	112.6	100.2	96.3
70°	271.9	145.0	95.4	85.8	83.0
72.5°	227.0	109.7	80.1	72.5	70.6
75°	187.9	85.8	64.9	59.1	57.2
77.5°	146.9	64.9	50.6	46.7	45.8
80°	107.8	46.7	38.2	35.3	34.3
82.5°	73.4	31.5	26.7	24.8	23.8
85°	42.0	17.2	16.2	14.3	14.3
87.5°	16.2	6.7	5.7	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)