

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: P242971

Luminaire Tested: **S121DR-H1025D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242971
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-47)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-H1025D940-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3433.4 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

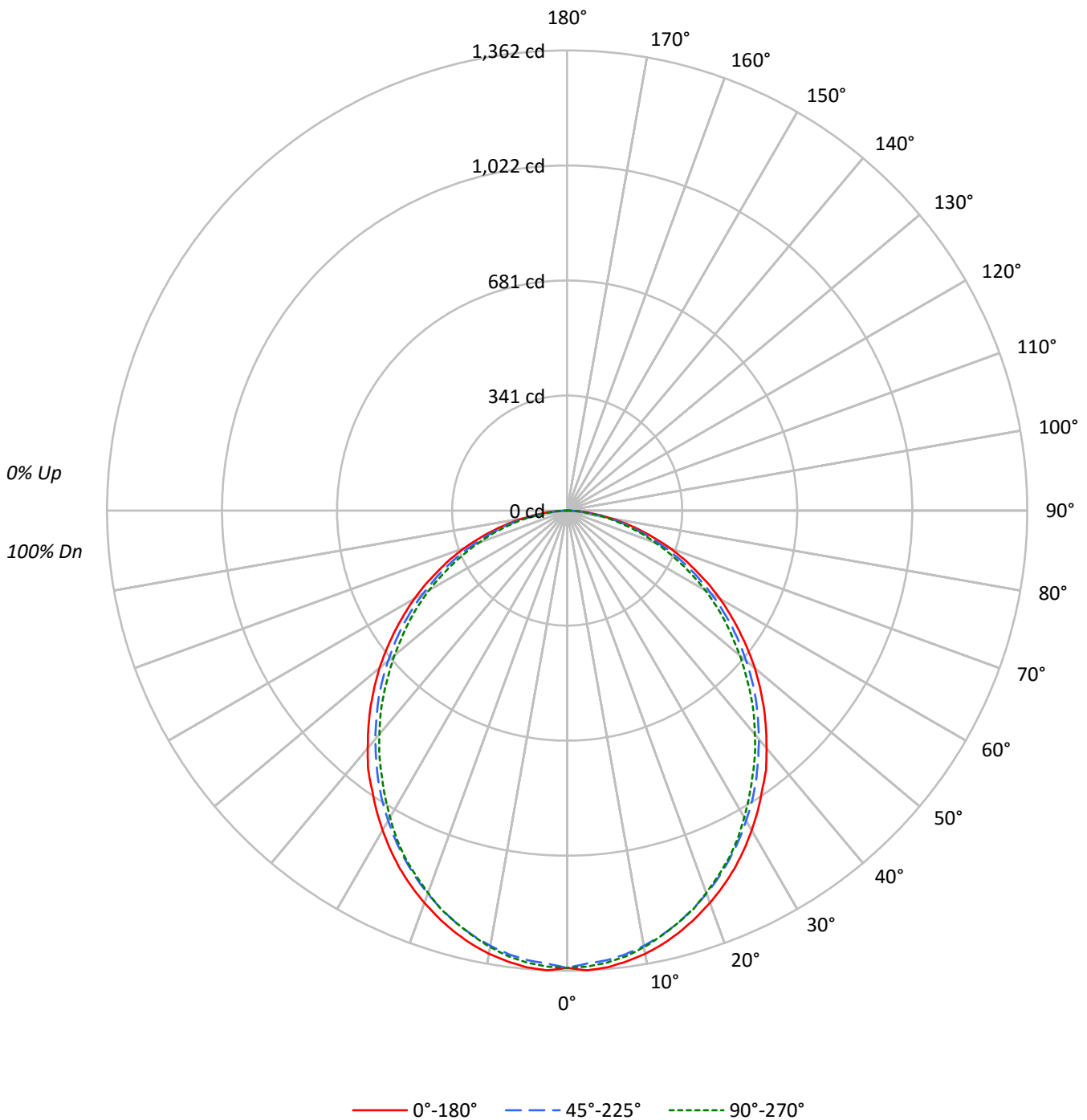
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	97	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	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	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°	40101	40101	40101
5°	40367	39731	39957
10°	40079	39360	39474
15°	39592	38782	38782
20°	38957	38046	37967
25°	38260	37191	37070
30°	37378	36263	35876
35°	36432	35252	34616
40°	35511	34153	33426
45°	34478	33112	32165
50°	33419	31857	30760
55°	32136	30649	29481
60°	30993	29209	27947
65°	29460	27609	26116
70°	27930	25643	24014
75°	25563	23262	21831
80°	22250	20544	19042
85°	19174	15774	13225



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.5	3.7
10°-20°	358.8	10.5
20°-30°	527.5	15.4
30°-40°	612.2	17.8
40°-50°	610.6	17.8
50°-60°	531.6	15.5
60°-70°	391.3	11.4
70°-80°	217.9	6.3
80°-90°	56.0	1.6
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°	1013.9	29.5
0°-40°	1626.1	47.4
0°-60°	2768.3	80.6
0°-90°	3433.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3433.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1353	1353	1353	1353	1353	
5°	1357	1350	1336	1346	1343	129
15°	1291	1283	1264	1269	1264	364
25°	1170	1156	1138	1138	1134	539
35°	1007	995	975	963	957	631
45°	823	809	790	774	768	635
55°	622	611	593	577	571	557
65°	420	411	394	378	372	417
75°	223	213	203	194	191	237
85°	56	53	46	40	39	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1353.4	1353.4	1353.4	1353.4	1353.4
2.5°	1362.2	1354.6	1342.1	1353.4	1350.9
5°	1357.2	1349.6	1335.8	1345.9	1343.4
7.5°	1345.9	1339.6	1324.5	1333.3	1330.8
10°	1332.1	1324.5	1308.2	1315.8	1312.0
12.5°	1313.2	1307.0	1288.2	1294.4	1289.4
15°	1290.7	1283.1	1264.3	1269.3	1264.3
17.5°	1264.3	1256.8	1236.7	1240.5	1238.0
20°	1235.5	1225.4	1206.6	1209.1	1204.1
22.5°	1204.1	1192.8	1174.0	1174.0	1169.0
25°	1170.3	1156.5	1137.6	1137.6	1133.9
27.5°	1132.6	1120.1	1100.0	1097.5	1093.7
30°	1092.5	1080.0	1059.9	1054.9	1048.6
32.5°	1051.1	1037.3	1018.5	1009.7	1003.4
35°	1007.2	994.7	974.6	963.3	957.0
37.5°	967.1	949.5	928.2	918.1	913.1
40°	918.1	903.1	883.0	869.2	864.2
42.5°	870.5	856.7	835.4	821.6	817.8
45°	822.8	809.0	790.2	773.9	767.6
47.5°	773.9	760.1	741.3	725.0	716.2
50°	725.0	711.2	691.1	674.8	667.3
52.5°	673.6	663.5	642.2	627.1	617.1
55°	622.1	610.8	593.3	577.0	570.7
57.5°	572.0	561.9	543.1	525.6	521.8
60°	523.0	513.0	492.9	477.9	471.6
62.5°	471.6	461.6	442.8	427.7	421.4
65°	420.2	411.4	393.8	377.5	372.5
67.5°	372.5	361.2	344.9	329.9	323.6
70°	322.4	309.8	296.0	283.5	277.2
72.5°	272.2	262.1	250.9	238.3	235.8
75°	223.3	213.2	203.2	194.4	190.7
77.5°	176.9	169.3	161.8	153.0	150.5
80°	130.4	125.4	120.4	114.1	111.6
82.5°	91.6	87.8	80.3	75.3	72.7
85°	56.4	52.7	46.4	40.1	38.9
87.5°	26.3	21.3	16.3	13.8	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)