

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: P243059

Luminaire Tested: **S121RDR-H1025D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243059
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-H1025D840-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3117.2 lumens
Efficiency: N/A
Efficacy: 82.7 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

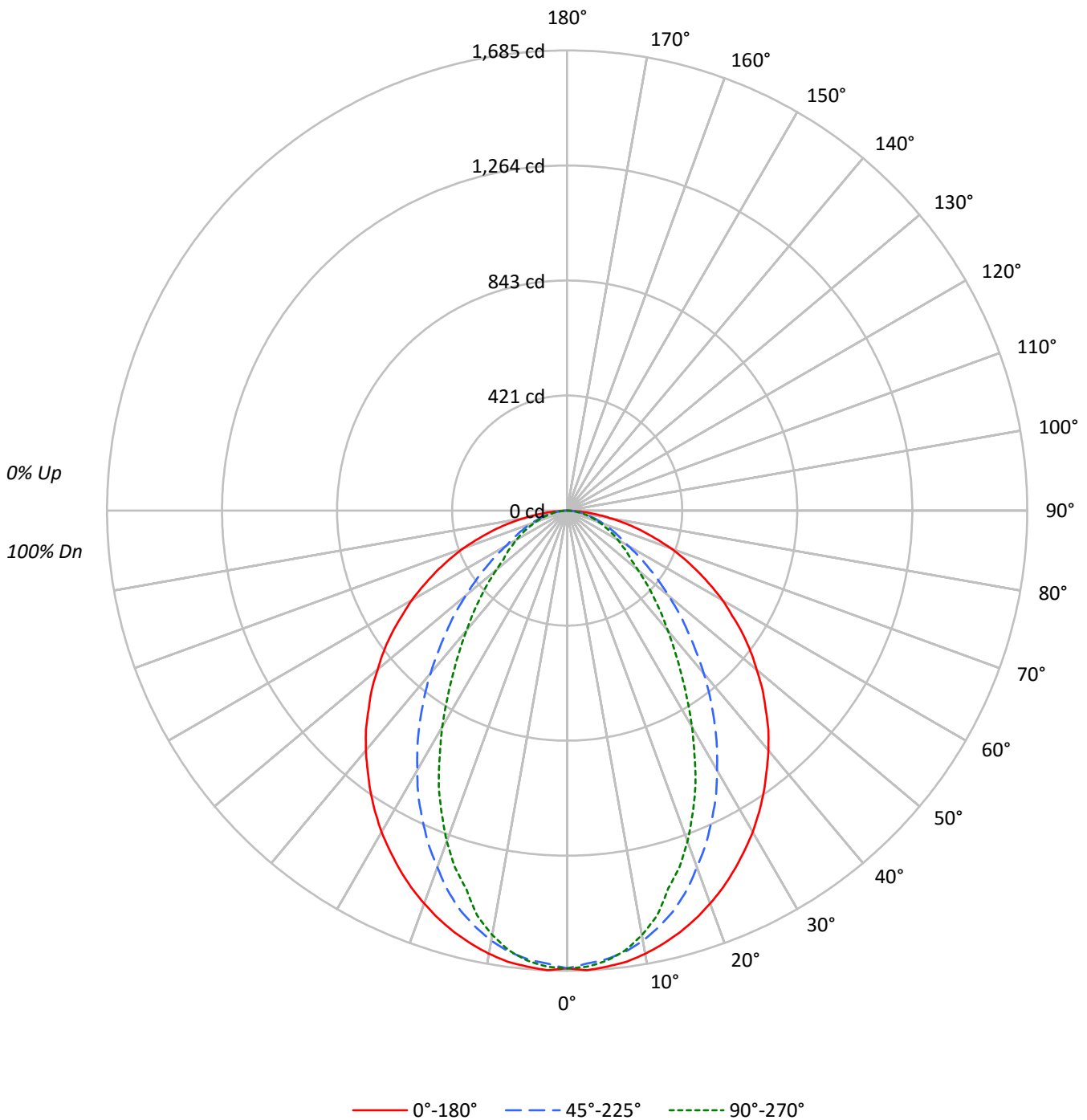
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P243059

CATALOG NUMBER: S121RDR-H1025D840-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P243059

CATALOG NUMBER: S121RDR-H1025D840-X4F0-XX-UDD-F-W

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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75				75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				57
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50				50
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41				41
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	49665	49665	49665
5°	49855	49052	49221
10°	49577	48124	47483
15°	49022	46448	43923
20°	48284	43803	40625
25°	47414	40915	36361
30°	46510	37566	31298
35°	45420	33961	26307
40°	44338	30108	22144
45°	43093	26131	18751
50°	41776	22264	15585
55°	40505	18783	13870
60°	38975	15236	12711
65°	37046	13643	11652
70°	35068	12302	10708
75°	32032	11059	9754
80°	27386	9692	8719
85°	21248	8193	7241



TEST NUMBER: P243059

CATALOG NUMBER: S121RDR-H1025D840-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.9	5.0
10°-20°	426.5	13.7
20°-30°	582.0	18.7
30°-40°	603.3	19.4
40°-50°	526.4	16.9
50°-60°	396.2	12.7
60°-70°	259.8	8.3
70°-80°	132.4	4.2
80°-90°	33.6	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°	1165.5	37.4
0°-40°	1768.8	56.7
0°-60°	2691.4	86.3
0°-90°	3117.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3117.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1676	1676	1676	1676	1676	
5°	1676	1668	1649	1659	1655	159
15°	1598	1575	1514	1472	1432	450
25°	1450	1391	1252	1146	1112	668
35°	1256	1148	939	781	727	785
45°	1028	879	624	484	448	794
55°	784	597	364	276	268	700
65°	528	330	195	172	166	524
75°	280	128	97	88	85	295
85°	62	26	24	21	21	75
90°	0	0	0	0	0	



TEST NUMBER: P243059

CATALOG NUMBER: S121RDR-H1025D840-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1676.2	1676.2	1676.2	1676.2	1676.2
2.5°	1684.7	1677.6	1660.6	1674.8	1671.9
5°	1676.2	1667.7	1649.2	1659.1	1654.9
7.5°	1666.2	1654.9	1629.3	1633.6	1625.0
10°	1647.8	1633.6	1599.5	1591.0	1578.2
12.5°	1625.0	1609.4	1559.7	1539.8	1519.9
15°	1598.1	1575.3	1514.2	1471.6	1431.9
17.5°	1566.8	1538.4	1457.4	1397.8	1367.9
20°	1531.3	1494.4	1389.2	1319.6	1288.4
22.5°	1492.9	1446.1	1325.3	1237.3	1200.3
25°	1450.3	1390.7	1251.5	1146.3	1112.2
27.5°	1404.9	1336.7	1180.4	1059.7	1010.0
30°	1359.4	1274.2	1098.0	963.1	914.8
32.5°	1308.3	1211.7	1019.9	870.8	816.8
35°	1255.7	1147.8	938.9	781.3	727.3
37.5°	1200.3	1083.8	858.0	698.9	646.3
40°	1146.3	1014.2	778.4	619.3	572.5
42.5°	1090.9	944.6	698.9	549.7	510.0
45°	1028.4	879.3	623.6	484.4	447.5
47.5°	970.2	808.3	555.4	426.1	392.1
50°	906.3	738.7	483.0	372.2	338.1
52.5°	846.6	667.6	423.3	315.3	294.0
55°	784.1	596.6	363.6	275.6	268.5
57.5°	717.3	527.0	311.1	247.2	238.6
60°	657.7	460.2	257.1	221.6	214.5
62.5°	590.9	393.5	223.0	197.4	190.3
65°	528.4	329.6	194.6	171.9	166.2
67.5°	465.9	271.3	167.6	149.2	143.5
70°	404.8	215.9	142.0	127.8	123.6
72.5°	338.1	163.4	119.3	108.0	105.1
75°	279.8	127.8	96.6	88.1	85.2
77.5°	218.8	96.6	75.3	69.6	68.2
80°	160.5	69.6	56.8	52.6	51.1
82.5°	109.4	46.9	39.8	36.9	35.5
85°	62.5	25.6	24.1	21.3	21.3
87.5°	24.1	9.9	8.5	8.5	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)