

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: P242190

Luminaire Tested: **S121RDR-S1025D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242190
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-23)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-S1025D830-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3124.1 lumens
Efficiency: N/A
Efficacy: 76.0 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

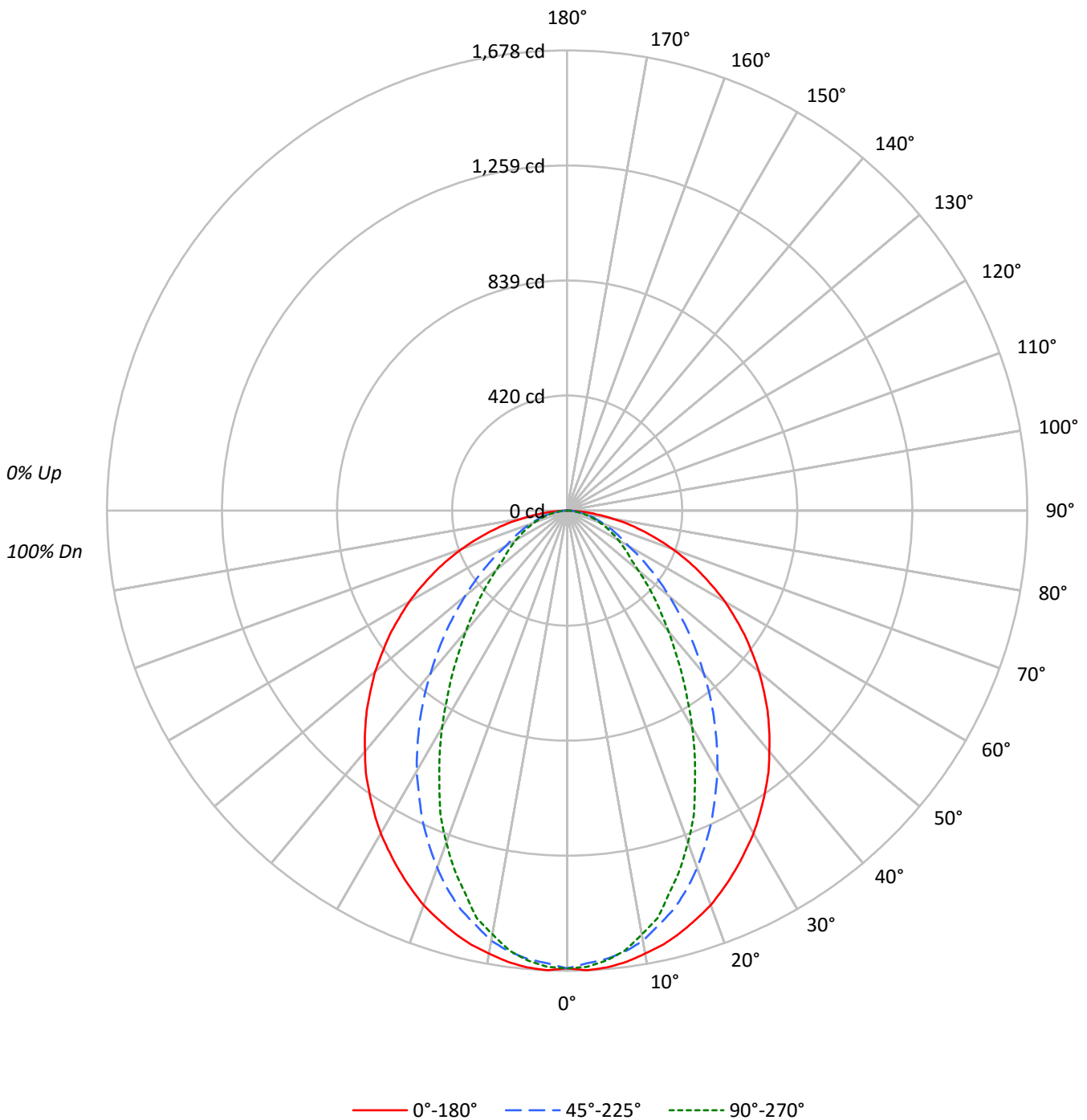
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	93	91	92	90	89					87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77					75				
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67					65				
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59					57				
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52					50				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42					40				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38					37				
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35					33				
10	58	45	38	33	56	45	37	33	44	37	33	43	37	32	42	36	32					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	49461	49461	49461
5°	49733	48820	48987
10°	49342	47913	47197
15°	48893	46150	44221
20°	48274	43693	40612
25°	47359	40781	36034
30°	46503	37518	31209
35°	45474	33853	26427
40°	44361	29988	22260
45°	43315	26164	18789
50°	42113	22407	15520
55°	40774	18907	13855
60°	39402	15313	12830
65°	37509	13812	11849
70°	35337	12466	10890
75°	32467	11356	10074
80°	28359	10016	9060
85°	23253	8533	7615



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.3	5.0
10°-20°	425.0	13.6
20°-30°	580.2	18.6
30°-40°	603.0	19.3
40°-50°	526.8	16.9
50°-60°	398.3	12.7
60°-70°	263.1	8.4
70°-80°	135.6	4.3
80°-90°	36.0	1.2
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°	1161.4	37.2
0°-40°	1764.4	56.5
0°-60°	2689.5	86.1
0°-90°	3124.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3124.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1669	1669	1669	1669	1669	
5°	1672	1662	1641	1654	1647	159
15°	1594	1570	1504	1465	1442	449
25°	1449	1391	1247	1144	1102	667
35°	1257	1146	936	782	731	787
45°	1034	879	624	485	448	797
55°	789	599	366	278	268	705
65°	535	334	197	173	169	530
75°	284	131	99	91	88	302
85°	68	28	25	24	22	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1669.3	1669.3	1669.3	1669.3	1669.3
2.5°	1677.7	1669.3	1652.6	1667.9	1665.1
5°	1672.1	1662.3	1641.4	1654.0	1647.0
7.5°	1659.5	1648.4	1621.8	1626.0	1617.6
10°	1640.0	1627.4	1592.5	1585.5	1568.7
12.5°	1620.4	1600.9	1546.4	1532.4	1522.6
15°	1593.9	1570.1	1504.5	1465.4	1441.6
17.5°	1563.2	1531.0	1448.6	1395.5	1370.4
20°	1531.0	1489.1	1385.7	1313.1	1288.0
22.5°	1490.5	1441.6	1317.3	1230.7	1205.5
25°	1448.6	1391.3	1247.4	1144.1	1102.2
27.5°	1403.9	1334.1	1169.2	1053.3	1007.2
30°	1359.2	1274.0	1096.6	956.9	912.2
32.5°	1308.9	1213.9	1015.6	868.9	815.8
35°	1257.2	1145.5	935.9	782.3	730.6
37.5°	1205.5	1082.6	856.3	701.3	646.8
40°	1146.9	1017.0	775.3	616.0	575.5
42.5°	1091.0	948.5	698.5	550.4	507.1
45°	1033.7	878.7	624.4	484.7	448.4
47.5°	972.3	810.2	551.8	427.5	391.1
50°	913.6	737.6	486.1	371.6	336.7
52.5°	849.3	669.1	424.7	314.3	294.7
55°	789.3	599.3	366.0	278.0	268.2
57.5°	725.0	532.2	311.5	251.4	240.3
60°	664.9	465.2	258.4	223.5	216.5
62.5°	597.9	400.9	224.9	198.4	191.4
65°	535.0	333.9	197.0	173.2	169.0
67.5°	472.2	276.6	170.4	150.9	146.7
70°	407.9	219.3	143.9	129.9	125.7
72.5°	345.0	167.6	120.1	109.0	106.2
75°	283.6	131.3	99.2	90.8	88.0
77.5°	229.1	100.6	78.2	71.2	69.8
80°	166.2	74.0	58.7	54.5	53.1
82.5°	113.2	50.3	41.9	39.1	36.3
85°	68.4	27.9	25.1	23.7	22.4
87.5°	27.9	12.6	11.2	9.8	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)