

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: P243050

Luminaire Tested: **S121RDR-H1025D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243050
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-H1025D830-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2909.4 lumens
Efficiency: N/A
Efficacy: 77.2 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

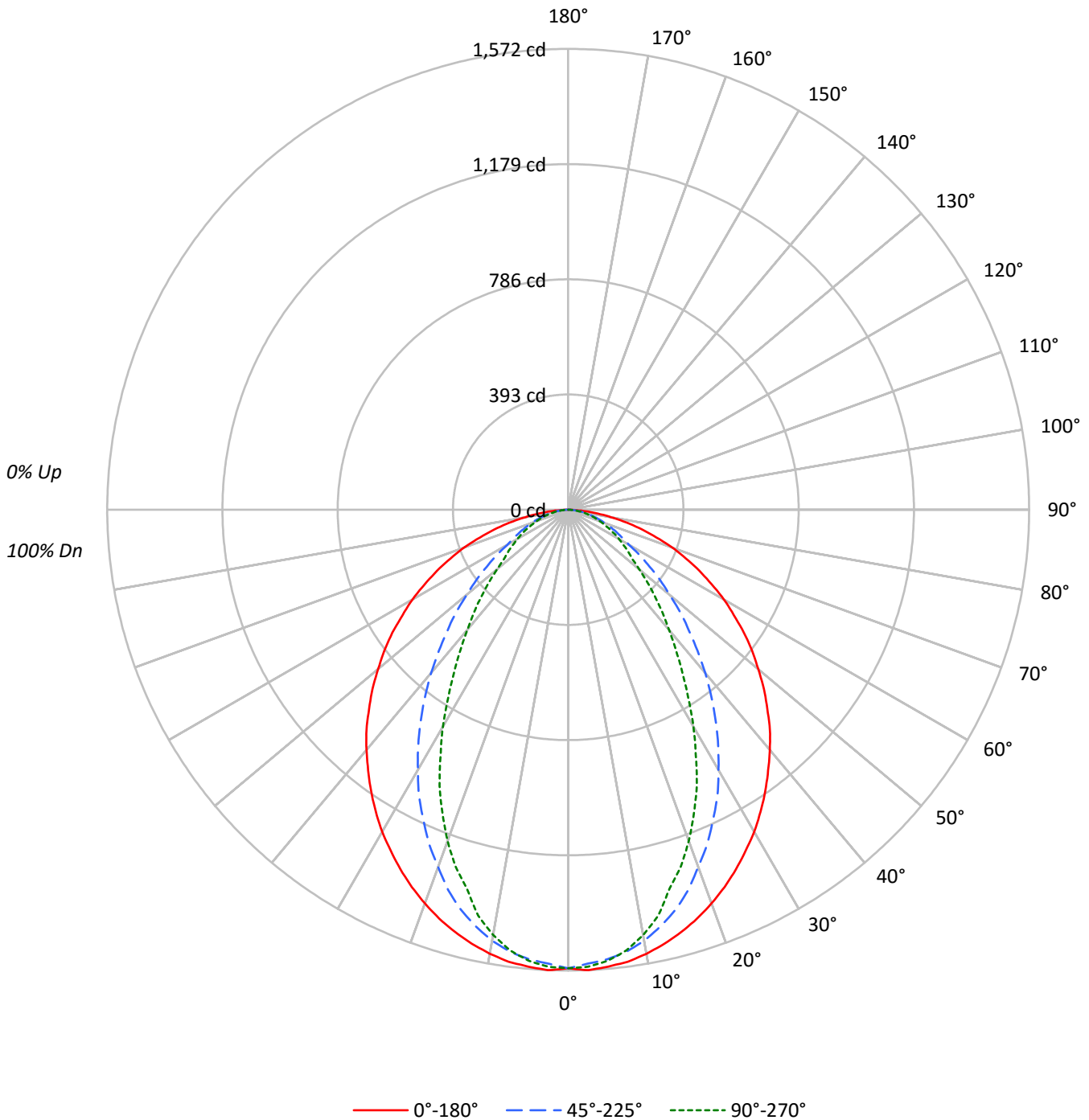
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	46353	46353	46353
5°	46530	45783	45941
10°	46270	44914	44318
15°	45752	43353	40994
20°	45064	40883	37916
25°	44253	38185	33938
30°	43410	35062	29211
35°	42393	31700	24553
40°	41382	28100	20666
45°	40222	24387	17499
50°	38992	20780	14543
55°	37803	17533	12945
60°	36373	14222	11864
65°	34578	12732	10874
70°	32738	11487	9989
75°	29902	10326	9101
80°	25560	9043	8139
85°	19820	7649	6765



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.5	5.0
10°-20°	398.1	13.7
20°-30°	543.2	18.7
30°-40°	563.1	19.4
40°-50°	491.3	16.9
50°-60°	369.8	12.7
60°-70°	242.5	8.3
70°-80°	123.6	4.2
80°-90°	31.4	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°	1087.8	37.4
0°-40°	1650.9	56.7
0°-60°	2512.0	86.3
0°-90°	2909.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2909.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1564	1564	1564	1564	1564	
5°	1564	1556	1539	1548	1545	149
15°	1492	1470	1413	1374	1336	420
25°	1354	1298	1168	1070	1038	624
35°	1172	1071	876	729	679	733
45°	960	821	582	452	418	741
55°	732	557	339	257	251	653
65°	493	308	182	160	155	489
75°	261	119	90	82	80	275
85°	58	24	22	20	20	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1564.4	1564.4	1564.4	1564.4	1564.4
2.5°	1572.4	1565.8	1549.9	1563.1	1560.5
5°	1564.4	1556.5	1539.3	1548.5	1544.6
7.5°	1555.2	1544.6	1520.7	1524.7	1516.7
10°	1537.9	1524.7	1492.8	1484.9	1473.0
12.5°	1516.7	1502.1	1455.7	1437.2	1418.6
15°	1491.5	1470.3	1413.3	1373.5	1336.4
17.5°	1462.4	1435.8	1360.3	1304.6	1276.7
20°	1429.2	1394.7	1296.6	1231.7	1202.5
22.5°	1393.4	1349.7	1237.0	1154.8	1120.3
25°	1353.6	1298.0	1168.0	1069.9	1038.1
27.5°	1311.2	1247.6	1101.7	989.0	942.6
30°	1268.8	1189.2	1024.8	898.9	853.8
32.5°	1221.1	1130.9	951.9	812.7	762.3
35°	1172.0	1071.2	876.4	729.2	678.8
37.5°	1120.3	1011.6	800.8	652.3	603.2
40°	1069.9	946.6	726.5	578.0	534.3
42.5°	1018.2	881.7	652.3	513.1	476.0
45°	959.9	820.7	582.0	452.1	417.6
47.5°	905.5	754.4	518.4	397.7	365.9
50°	845.9	689.4	450.8	347.4	315.5
52.5°	790.2	623.1	395.1	294.3	274.4
55°	731.8	556.8	339.4	257.2	250.6
57.5°	669.5	491.9	290.3	230.7	222.7
60°	613.8	429.6	240.0	206.8	200.2
62.5°	551.5	367.2	208.2	184.3	177.7
65°	493.2	307.6	181.6	160.4	155.1
67.5°	434.9	253.2	156.4	139.2	133.9
70°	377.9	201.5	132.6	119.3	115.3
72.5°	315.5	152.5	111.4	100.8	98.1
75°	261.2	119.3	90.2	82.2	79.5
77.5°	204.2	90.2	70.3	65.0	63.6
80°	149.8	65.0	53.0	49.1	47.7
82.5°	102.1	43.8	37.1	34.5	33.1
85°	58.3	23.9	22.5	19.9	19.9
87.5°	22.5	9.3	8.0	8.0	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)