

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: P242199

Luminaire Tested: **S121RDR-S1025D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242199
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-S1025D840-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3347.3 lumens
Efficiency: N/A
Efficacy: 81.4 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

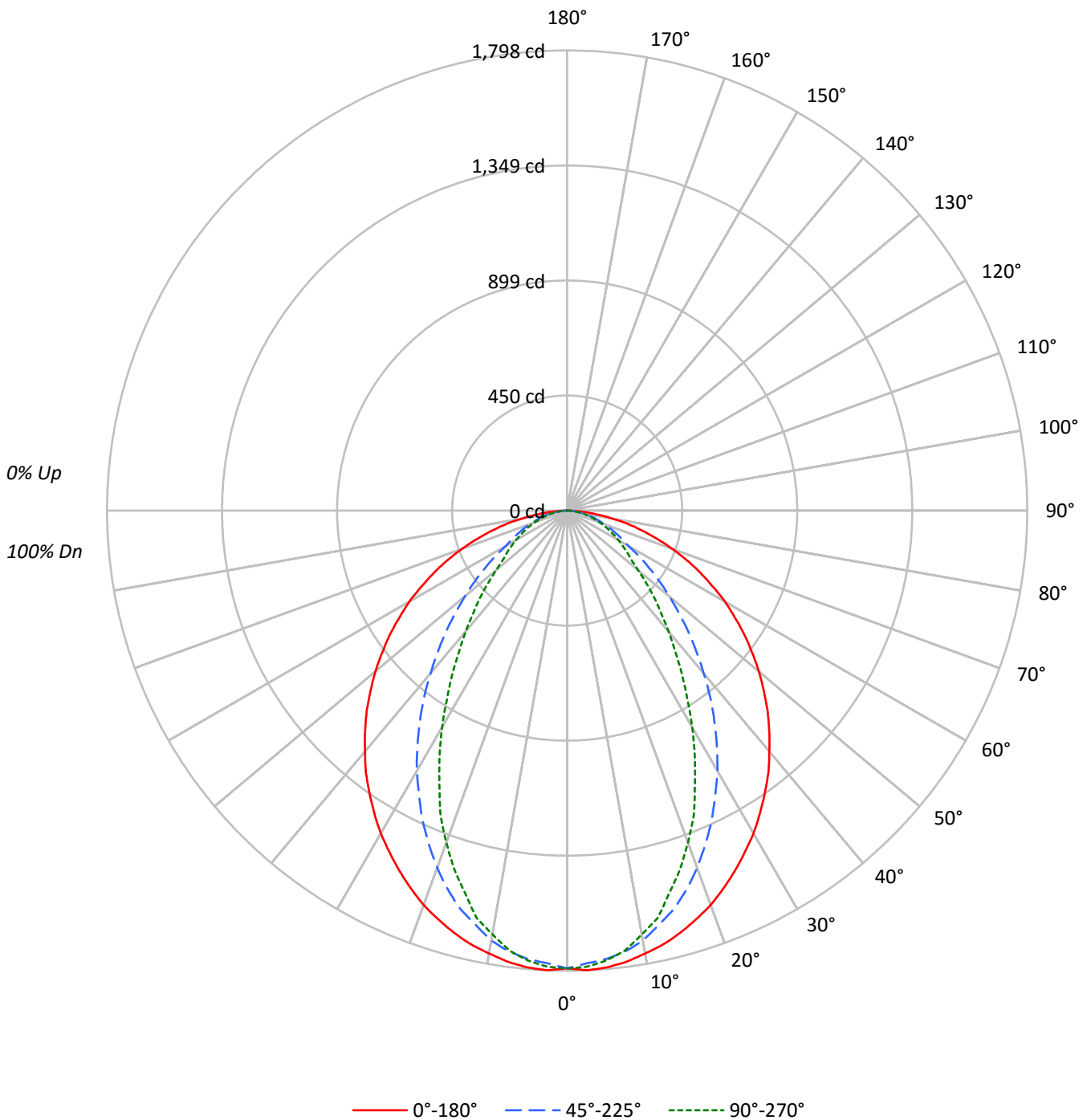
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	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°	52996	52996	52996
5°	53284	52306	52484
10°	52865	51334	50570
15°	52384	49445	47380
20°	51724	46814	43513
25°	50742	43694	38607
30°	49825	40197	33437
35°	48723	36272	28315
40°	47529	32131	23849
45°	46411	28033	20130
50°	45118	24011	16627
55°	43682	20255	14846
60°	42216	16409	13748
65°	40187	14793	12697
70°	37858	13359	11669
75°	34779	12169	10795
80°	30389	10733	9709
85°	24919	9145	8125



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.4	5.0
10°-20°	455.4	13.6
20°-30°	621.6	18.6
30°-40°	646.1	19.3
40°-50°	564.5	16.9
50°-60°	426.7	12.7
60°-70°	281.8	8.4
70°-80°	145.3	4.3
80°-90°	38.5	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°	1244.4	37.2
0°-40°	1890.4	56.5
0°-60°	2881.6	86.1
0°-90°	3347.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3347.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1789	1789	1789	1789	1789	
5°	1792	1781	1759	1772	1765	170
15°	1708	1682	1612	1570	1545	481
25°	1552	1491	1336	1226	1181	715
35°	1347	1227	1003	838	783	843
45°	1108	941	669	519	480	853
55°	846	642	392	298	287	755
65°	573	358	211	186	181	568
75°	304	141	106	97	94	323
85°	73	30	27	25	24	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1788.6	1788.6	1788.6	1788.6	1788.6
2.5°	1797.5	1788.6	1770.6	1787.1	1784.1
5°	1791.5	1781.1	1758.6	1772.1	1764.6
7.5°	1778.1	1766.1	1737.7	1742.2	1733.2
10°	1757.1	1743.7	1706.2	1698.8	1680.8
12.5°	1736.2	1715.2	1656.8	1641.9	1631.4
15°	1707.7	1682.3	1611.9	1570.0	1544.6
17.5°	1674.8	1640.4	1552.1	1495.2	1468.3
20°	1640.4	1595.5	1484.7	1406.9	1380.0
22.5°	1597.0	1544.6	1411.4	1318.6	1291.6
25°	1552.1	1490.7	1336.5	1225.8	1180.9
27.5°	1504.2	1429.3	1252.7	1128.5	1079.1
30°	1456.3	1365.0	1174.9	1025.2	977.3
32.5°	1402.4	1300.6	1088.1	930.9	874.1
35°	1347.0	1227.3	1002.8	838.1	782.8
37.5°	1291.6	1159.9	917.5	751.3	693.0
40°	1228.8	1089.6	830.7	660.0	616.6
42.5°	1168.9	1016.3	748.3	589.7	543.3
45°	1107.6	941.4	669.0	519.4	480.4
47.5°	1041.7	868.1	591.2	458.0	419.1
50°	978.8	790.3	520.9	398.1	360.7
52.5°	910.0	716.9	455.0	336.8	315.8
55°	845.6	642.1	392.1	297.8	287.4
57.5°	776.8	570.2	333.8	269.4	257.4
60°	712.4	498.4	276.9	239.5	232.0
62.5°	640.6	429.6	241.0	212.5	205.0
65°	573.2	357.7	211.0	185.6	181.1
67.5°	505.9	296.3	182.6	161.6	157.2
70°	437.0	235.0	154.2	139.2	134.7
72.5°	369.7	179.6	128.7	116.7	113.7
75°	303.8	140.7	106.3	97.3	94.3
77.5°	245.5	107.8	83.8	76.3	74.8
80°	178.1	79.3	62.9	58.4	56.9
82.5°	121.2	53.9	44.9	41.9	38.9
85°	73.3	29.9	26.9	25.4	23.9
87.5°	29.9	13.5	12.0	10.5	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)