

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: P231721

Luminaire Tested: **S121-RDR-2-35-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231721
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33908)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121-RDR-2-35-X-0048-1-U-DD-1-W
Description: DEFINE 1 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3038.3 lumens
Efficiency: N/A
Efficacy: 71.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 0.93 / 1.1
Luminous Opening: Rectangular (W 0.1' x L: 3.92' x H: 0')
CIE Type: Direct

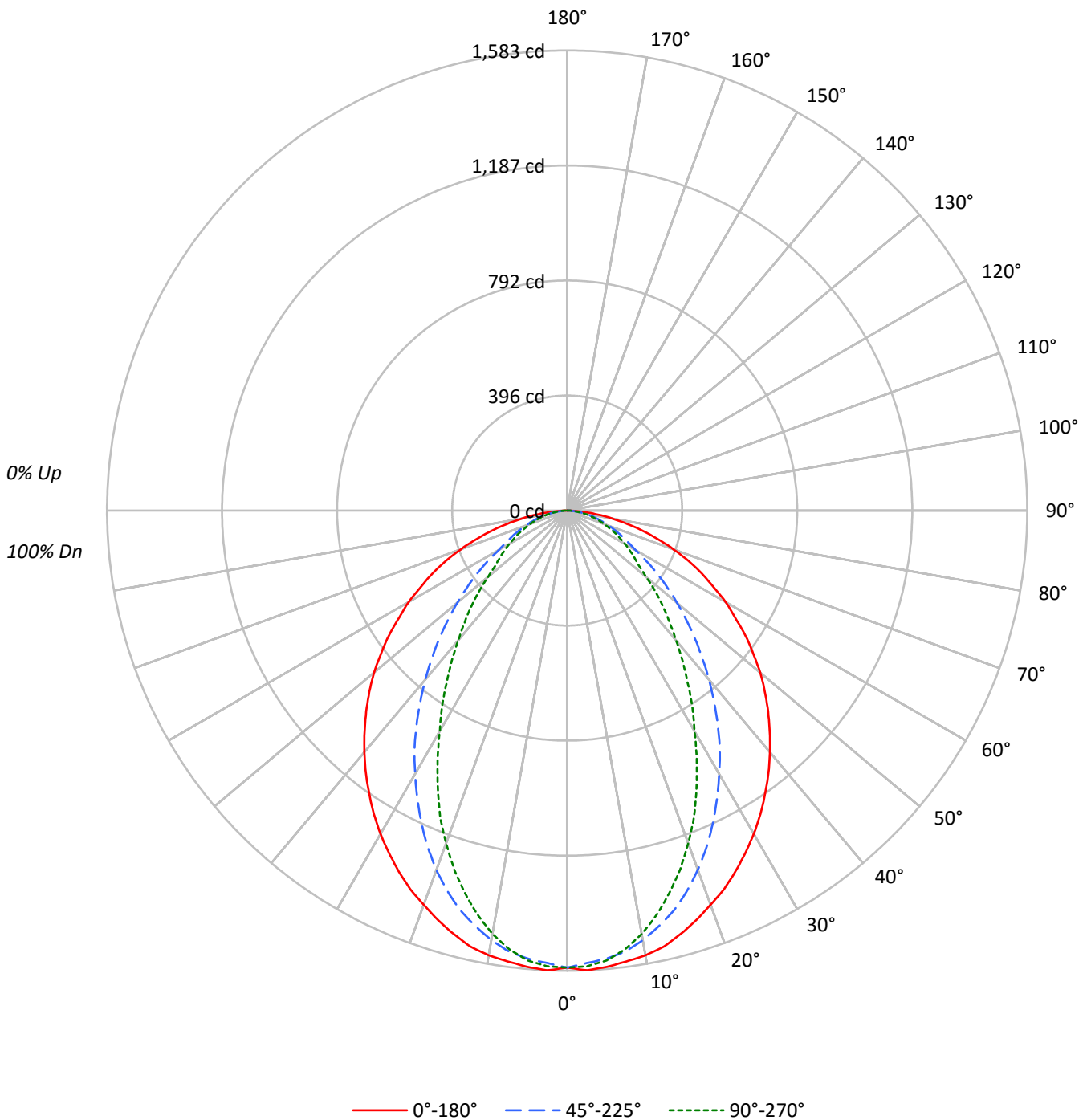
Input Watts (W): 42.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	104	100	97	99	97	94	96	93	91	92	90	88					86				
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76					74				
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66					64				
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	58					56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52					50				
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46					44				
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42					40				
8	65	52	44	39	63	51	44	38	50	43	38	49	43	38	48	42	38					36				
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	35					33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32					30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	43955	43955	43955
5°	44209	43424	43598
10°	44102	42600	41981
15°	43659	41178	39378
20°	42932	39132	36217
25°	42255	36588	32461
30°	41457	33767	28292
35°	40536	30867	24652
40°	39598	27722	21248
45°	38652	24557	18464
50°	37709	21460	15436
55°	36493	18439	13809
60°	35249	15147	12793
65°	33778	13694	11947
70°	31814	12596	11068
75°	29090	11439	10089
80°	25309	10030	9274
85°	19984	8501	7987



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.3	4.8
10°-20°	401.8	13.2
20°-30°	551.5	18.2
30°-40°	580.7	19.1
40°-50°	517.3	17.0
50°-60°	397.6	13.1
60°-70°	266.3	8.8
70°-80°	139.1	4.6
80°-90°	36.6	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°	1100.6	36.2
0°-40°	1681.4	55.3
0°-60°	2596.3	85.5
0°-90°	3038.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3038.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1572	1572	1572	1572	1572	
5°	1575	1566	1547	1558	1554	150
15°	1508	1488	1423	1387	1360	425
25°	1370	1312	1186	1096	1052	631
35°	1188	1090	904	769	722	743
45°	978	839	621	500	467	754
55°	749	584	378	293	283	668
65°	511	335	207	185	181	504
75°	269	137	106	96	93	285
85°	62	30	26	25	25	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1572.2	1572.2	1572.2	1572.2	1572.2
2.5°	1583.1	1573.7	1558.2	1572.2	1569.1
5°	1575.3	1566.0	1547.3	1558.2	1553.5
7.5°	1564.4	1551.9	1530.2	1533.3	1522.4
10°	1553.5	1536.4	1500.6	1492.8	1478.8
12.5°	1536.4	1517.7	1463.2	1441.4	1424.3
15°	1508.4	1488.1	1422.7	1386.9	1360.5
17.5°	1477.2	1446.1	1371.4	1321.6	1293.5
20°	1443.0	1405.6	1315.3	1251.5	1217.3
22.5°	1410.3	1360.5	1253.1	1176.8	1141.0
25°	1369.8	1312.2	1186.1	1095.9	1052.3
27.5°	1327.8	1257.7	1116.1	1014.9	965.1
30°	1284.2	1203.3	1046.0	929.3	876.4
32.5°	1237.5	1145.7	977.6	848.4	801.7
35°	1187.7	1089.6	904.4	769.0	722.3
37.5°	1137.9	1025.8	829.7	694.3	652.2
40°	1085.0	965.1	759.6	624.2	582.2
42.5°	1032.0	901.3	688.0	560.4	521.5
45°	977.6	839.0	621.1	499.7	467.0
47.5°	923.1	775.2	555.7	442.1	410.9
50°	867.0	711.4	493.4	387.6	354.9
52.5°	806.3	647.6	434.3	333.1	309.8
55°	748.7	583.7	378.3	292.6	283.3
57.5°	684.9	519.9	323.8	264.6	255.3
60°	630.4	456.1	270.9	238.2	228.8
62.5°	566.6	393.8	236.6	211.7	203.9
65°	510.6	334.7	207.0	185.2	180.6
67.5°	451.4	277.1	179.0	161.9	155.7
70°	389.2	222.6	154.1	138.5	135.4
72.5°	328.4	172.8	127.6	116.7	115.2
75°	269.3	137.0	105.9	96.5	93.4
77.5°	211.7	104.3	84.1	77.8	76.3
80°	157.2	76.3	62.3	59.2	57.6
82.5°	107.4	51.4	43.6	40.5	40.5
85°	62.3	29.6	26.5	24.9	24.9
87.5°	23.3	12.5	10.9	10.9	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)