

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: P242193

Luminaire Tested: **S121RDR-S880D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242193
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-S880D835-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2852.0 lumens
Efficiency: N/A
Efficacy: 82.0 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

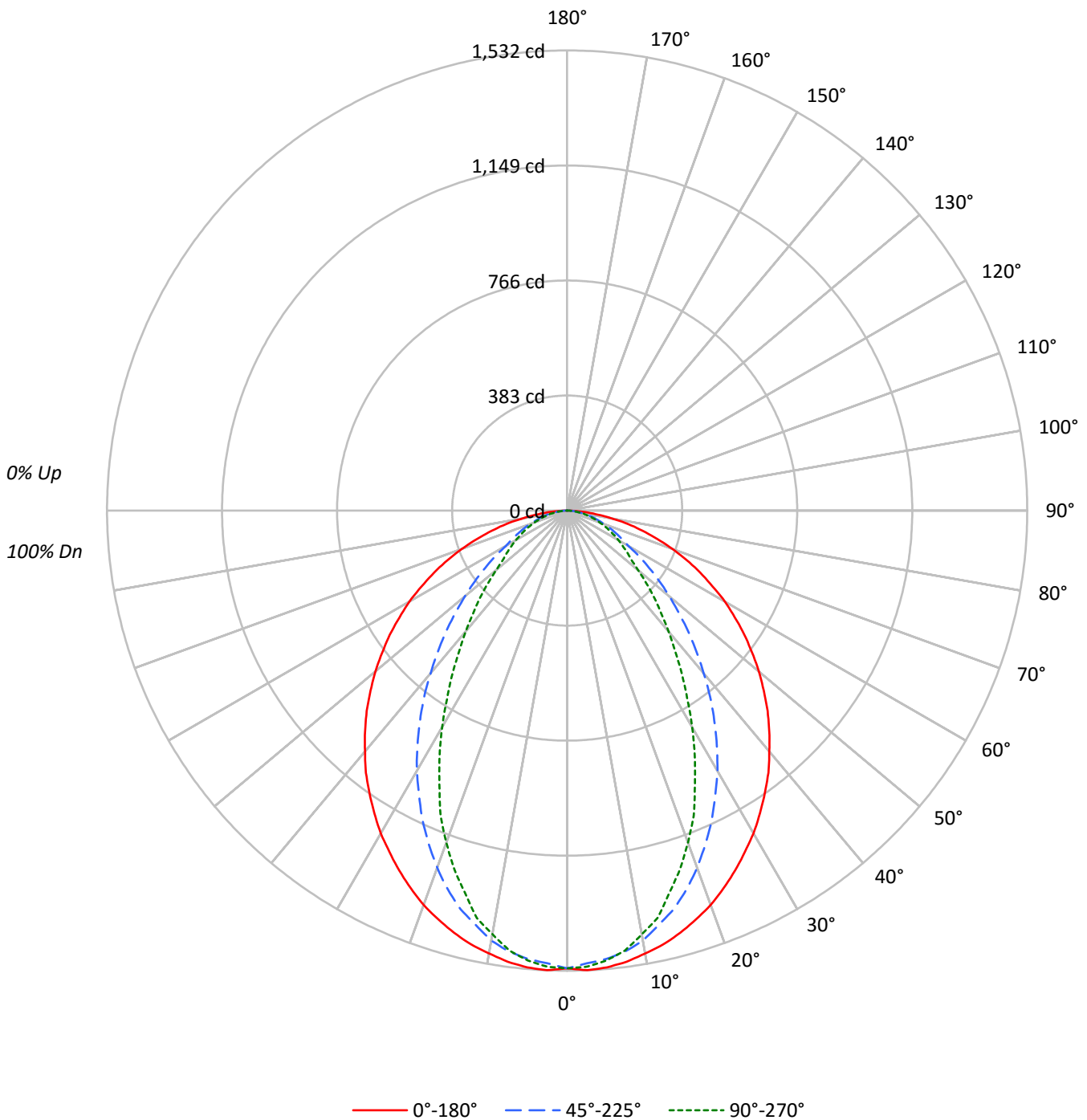
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75		
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	65	65	65	65	65		
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57	57	57	57	57	57	57		
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	50	50	50	50	50	50	50		
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45		
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40	40	40	40	40	40	40		
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37	37	37	37	37	37	37		
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33	33	33	33	33	33	33		
10	58	45	38	33	56	45	37	33	44	37	33	43	37	32	42	36	32	31	31	31	31	31	31	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	45153	45153	45153
5°	45403	44567	44718
10°	45043	43740	43087
15°	44635	42129	40371
20°	44071	39887	37074
25°	43233	37231	32895
30°	42452	34251	28490
35°	41514	30905	24126
40°	40497	27377	20322
45°	39544	23885	17155
50°	38444	20457	14165
55°	37219	17259	12646
60°	35970	13979	11716
65°	34242	12606	10818
70°	32262	11383	9945
75°	29639	10360	9193
80°	25902	9146	8276
85°	21248	7819	6935



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.7	5.0
10°-20°	388.0	13.6
20°-30°	529.6	18.6
30°-40°	550.5	19.3
40°-50°	480.9	16.9
50°-60°	363.6	12.7
60°-70°	240.1	8.4
70°-80°	123.8	4.3
80°-90°	32.9	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°	1060.3	37.2
0°-40°	1610.7	56.5
0°-60°	2455.2	86.1
0°-90°	2852.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2852.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1524	1524	1524	1524	1524	
5°	1526	1518	1498	1510	1504	145
15°	1455	1433	1373	1338	1316	410
25°	1322	1270	1139	1044	1006	609
35°	1148	1046	854	714	667	718
45°	944	802	570	442	409	727
55°	720	547	334	254	245	644
65°	488	305	180	158	154	484
75°	259	120	90	83	80	276
85°	62	26	23	22	20	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1523.9	1523.9	1523.9	1523.9	1523.9
2.5°	1531.6	1523.9	1508.6	1522.6	1520.1
5°	1526.5	1517.5	1498.4	1509.9	1503.5
7.5°	1515.0	1504.8	1480.6	1484.4	1476.7
10°	1497.1	1485.7	1453.8	1447.4	1432.1
12.5°	1479.3	1461.4	1411.7	1398.9	1390.0
15°	1455.1	1433.4	1373.4	1337.7	1316.1
17.5°	1427.0	1397.7	1322.4	1274.0	1251.0
20°	1397.7	1359.4	1265.0	1198.7	1175.8
22.5°	1360.7	1316.1	1202.6	1123.5	1100.5
25°	1322.4	1270.1	1138.8	1044.4	1006.2
27.5°	1281.6	1217.9	1067.4	961.5	919.5
30°	1240.8	1163.0	1001.1	873.5	832.7
32.5°	1194.9	1108.2	927.1	793.2	744.7
35°	1147.7	1045.7	854.4	714.1	667.0
37.5°	1100.5	988.3	781.7	640.2	590.4
40°	1047.0	928.4	707.8	562.4	525.4
42.5°	996.0	865.9	637.6	502.4	462.9
45°	943.7	802.1	570.0	442.5	409.4
47.5°	887.6	739.6	503.7	390.2	357.1
50°	834.0	673.3	443.8	339.2	307.3
52.5°	775.3	610.8	387.7	286.9	269.1
55°	720.5	547.1	334.1	253.8	244.8
57.5°	661.9	485.9	284.4	229.5	219.3
60°	607.0	424.7	235.9	204.0	197.7
62.5°	545.8	366.0	205.3	181.1	174.7
65°	488.4	304.8	179.8	158.1	154.3
67.5°	431.0	252.5	155.6	137.7	133.9
70°	372.4	200.2	131.4	118.6	114.8
72.5°	315.0	153.0	109.7	99.5	96.9
75°	258.9	119.9	90.5	82.9	80.3
77.5°	209.1	91.8	71.4	65.0	63.8
80°	151.8	67.6	53.6	49.7	48.5
82.5°	103.3	45.9	38.3	35.7	33.2
85°	62.5	25.5	23.0	21.7	20.4
87.5°	25.5	11.5	10.2	8.9	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)